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# A HISTORY OF ENGLISH GLASS-PAINTING







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A. TUDOR HERALDIC MEDALION  
FRONTISPIECE

## FRONTISPIECE

### A TUDOR HERALDIC MEDALLION

From Mr Radford's Collection. Circa 1536. Arms of Henry VIII and Jane Seymour from Nonsuch Palace. A very fine and typical example of Tudor heraldic work. The coloured wreath with red and white roses of Lancaster and York takes the place of the Perpendicular wreath of spiral foliage. Abrasion is properly employed: for the centres of the red roses, the lions of England, and in all the sinister quarterings except that of Beauchamp. The Gothic diapered backgrounds have almost fallen into disuse, only appearing in the three lower sinister quarterings, where they are lightly traced in outline colour.



# A HISTORY OF ENGLISH GLASS-PAINTING

WITH SOME REMARKS UPON THE SWISS GLASS  
MINIATURES OF THE SIXTEENTH AND SEVEN-  
TEENTH CENTURIES

BY MAURICE DRAKE

ILLUSTRATED BY 36 PLATES  
FROM DRAWINGS BY WILFRED DRAKE



T. WERNER LAURIE LTD., CLIFFORD'S INN, LONDON  
M·CM·XII



TO MY FATHER  
IN GRATITUDE FOR TWO GOOD THINGS—A  
PLEASANT HANDICRAFT, AND A  
JOLLY LITTLE COUNTRY SHOP TO WORK IN

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# ACKNOWLEDGMENTS

**W**HAT little I know of my handicraft—that occupation in which I have found happiness and earned my bread—I owe to my father. I hope the dedication of this book will show him I am not unmindful of so great a debt.

To Mr Arthur Rippon, of Topsham, I owe sincere thanks for his cheerful and patient assistance in microscopic work, and to Mr Noël Heaton, of London, for the fruits of his studious research into the subject of corrosion. They are also due to Mr Charles Sherrill, of New York, and to his publishers, Messrs John Lane, for their kindly loan of the illustration that appears on Plate I, and to Mr Charles E. Clouting, A.R.I.B.A., for the drawings of stonework which head each chapter.

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Finally I cannot adequately express my indebtedness to Mr Alfred Werck, of the Holbein Studio, Fitzroy-street, W., for the

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readiness with which he has aided me in the preparation of the chapter dealing with the Swiss miniature windows of the sixteenth and seventeenth centuries. We have our little jealousies, we glass-painters. We love to preserve the fiction of "secret processes," and perhaps are prone at times to resent too searching inquiries into the nature of our handicraft. Yet Mr Werck, possessing a sounder knowledge of Swiss glass than any other authority in England, has denied me nothing from his store. He has answered my questions, borne with a curiosity that often must have seemed to him impertinent, and freely and readily given me information which other so-called experts—if they had it at command—would have haggled over like so many market-women. As a consequence the chapter on Swiss glass is more his work than mine, and the appended list of native glass-painters—which, though admittedly incomplete, is yet of value—is his entirely.

Three Gables, The Close, Exeter.  
March, 1912.

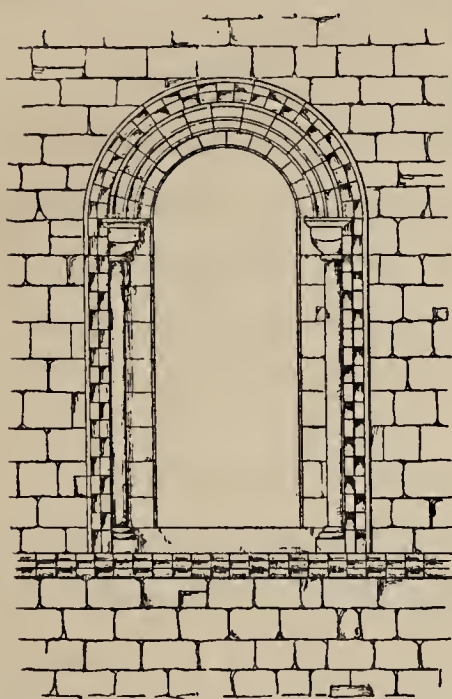


# A HISTORY OF ENGLISH GLASS-PAINTING

## INTRODUCTION

### EARLY LEGEND AND TRADITION

French Origins—St Benedict Biscop of Wearmouth imports French Glaziers, A.D. 680—Glaziers' Chartered Privileges in France from 873—Henry II of England and Philip of France—Fourteenth Century Depression in France and consequent Emigration to England—Fifteenth Century Privileges and Royal Patronage—The Later Decline of Glass-Painting—Modern Glaziers—The Pains and Pleasures of Collecting.



A TYPICAL NORMAN WINDOW OPENING.

LIKE most poor rogues who live by their wits, we glass-painters have had our ups and downs. In one century petted by kings and mitred abbots; in the next utterly disregarded, or, worse still, hanged for idle rascals. It is with mixed emotions that one studies the history of his art.

France was our early home. Again and again old English records, fabric rolls and the like, tell how this bishop or that sent across Channel for the glass to fill his windows, for the men to paint and fix the glass in place. So long ago as A.D. 680 St Benedict Biscop, Abbot of Wearmouth, sent thus. Perhaps there were no glass-painters in England at that date. It is certain that those in France had temptations enough to keep them in their native land.

Cathedrals vied with each other for their favours: kings conferred privileges on them. A charter of Charles the Bold in 873 accords to the glaziers Ragenulf and Baldéric common holding of some manses with the abbey of St Amand-en-Pévèle; one Abbot Girard in the eleventh century grants lifeholding of a house and an arpent (about one acre) of vineyard to Fulk, painter-glazier, on condition of his spending that life on the decoration and win-



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dows of Girard's abbey. Geoffrey de Champ Alleman, Bishop of Auxerre from 1052 to 1073, granted prebendships to a goldsmith, a painter and a glazier, in order to retain their services for the Cathedral's benefit. It is even said, though I can find no authority for the statement, that a clause in the treaty of peace concluded between Henry II of England and Philip of France at Tours in 1189 bound Philip to allow one of his best glass-painters to come to England. For two or three centuries glass-painters were a flourishing community.

Then, in the fourteenth century, came wars and trouble throughout all France. Cressy, Sluys, Poitiers; the Jacquerie; the plague. The nobles, fortifying their castles in haste, had little time to spare to order stained-glass windows; the bishops, with depleted revenues, had other things to think about than building cathedrals. The windows erected by former generations were smashed by raging peasants and angry soldiery, and the men who had painted them were scattered. Doubtless many came to England. It is certain that at this period there was a corresponding increase in the output of English stained-glass windows.

But by the fifteenth century the art had again arisen in France to its old favoured station. Letters patent of Charles V and VI declared glass-painters "free, quit and exempt of all taxes, aids and subsidies" as well as relieved of all such civil duties as gate-keeping, guards, and postern guards in whatever cities they might favour with their residence. These privileges were again confirmed in 1431 by Charles VII at the request of Henri Mellein, a glass-painter of Bourges, "in his person and for all others of his condition"; and Henri II on July 6, 1555, reconfirmed them anew.

But if Charles VII loved and favoured the art, René of Provence, his contemporary, went farther and practised it himself. Poet, musician and painter, to his court at Rousillon came with pomp Duke Charles of Orleans, came lean and ragged François Villon to try their skill in ballade, lay and virelai. And with them came lesser men, glass-painters, whose names are now forgotten, and from them René learned glass-painting as from their betters he learned the making of songs. A prisoner at Dijon after the battle

## EARLY LEGEND AND TRADITION

of Buligneville in 1431, and visited one day by his conqueror, Philip the Good, he offered his visitor portraits painted on glass by his own royal hand—one of Jean-sans-Peur and one of Philip himself. They were graciously accepted and ordered by Philip to be placed in the chapel windows at Chartreux.

Ups and downs. The pastime of a captive king in the fifteenth century, a flourishing handicraft in the sixteenth, a decaying one in the seventeenth. In the eighteenth— But let Mr John Berry of Salisbury, glazier to Salisbury Cathedral, speak. In 1788 he writes to Mr Lloyd, of Conduit Street, London, as follows:

“Sir,—This day I have sent you a box full of old stained and painted glass, as you desired me to due, which I hope will sute your Purpos, it his the best I can get at Present. But I expect to Beate to Peceais a great deal very sune, as it his of now use to me, and we do it for the lead. If you want any more of the same sorts you may have what thear is, if it will pay for taking out, as it is a Deal of Truble to what Beating it to Peceais his; you will send me a line as soon as Possoble, for we are goain to move our glasing shop to a Nother plase, and thin we hope to save (sic) a great deal more of the like sort, which I ham your most Omble Servant,  
“JOHN BERRY.”\*

No one can blame the man. During James Wyatt’s “restoration” of the cathedral he could have seen “whole cartloads of glass, lead and other rubbish removed from the nave and transepts and shot into the town ditch . . . whilst a good deal of similar rubbish was used to level the ground near the chapter house.” And this is no isolated instance. What was going on at Salisbury was going on freely all over England during the whole of the eighteenth and the first half of the nineteenth century. Even after Winston’s *Hints on Glass Painting*, published in 1847, had drawn the attention of the cultured to the beauty and interest of the early examples spared by Mr Berry and his fellows, bludgeon and whitewash were still merrily at work. As late as the early seventies a fine and com-

\* Winston.



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plete Decorated window, discovered in the Minstrels' gallery of Exeter Cathedral, was cut up by the chapter glazier to make coloured borders to his plain glazing. And I have seen a collection of Dutch sixteenth century medallions carefully packed one on another in a country cart in order that the driver could stand upon "them dirty panes in the middle of the lights" and save the worthless modern glazing around them from his hobnailed boots!

But now, after a century or more of neglect, glass-painting is coming into its own again. To those interested in the art, whether professionally or as amateurs, few things have been more noticeable than the recent great increase in the number of collectors of ancient glass. Only a generation ago such collectors were usually regarded as mild-mannered lunatics, but the past ten years have changed all that. Our more catholic system of art training has excited a new interest in, and a greater reverence for and care of, the work of departed generations of handicraftsmen. Modern stained-glass is more intelligently criticized, ancient glass more cherished than ever before. The fragments remaining in our old houses are no longer flung into the dustbin, and the "mild-mannered lunatics" have in many cases discovered that their despised collections, acquired at little expense, are valued in really large sums. That most infallible English test—the money test—has been applied to them, and proved them not mad, but sane in a marked degree.

But, as always happens when collectors wake to new interest in any subject, prices have immediately risen and the forger's skill become of increased market value. Just now the clever forger of stained-glass has unequalled opportunities. Often the clumsiest of his efforts go unchallenged, for really expert knowledge of stained-glass is rare. Perhaps it is no understatement to say that there are not at present in England half-a-dozen people fully qualified to judge the age and value of any examples submitted to them. And though books upon the subject are legion, they are for the most part written only for the historian, the craftsman, or the artist. There is no handbook hitherto published of the slightest use to the amateur collector.

And yet collecting ancient stained-glass is a fascinating, and

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not necessarily an expensive, business. Indeed, with judgement, it may prove a surprisingly profitable one. It develops the collector's *flair*—that mysterious sixth sense that comes by handling and practice—more perhaps than any other pursuit. It adds an interest to mediaeval history, promotes an intelligent curiosity in architecture and the allied arts, and finally beautifies its owner's home as does no other hobby—and this applies as much to the collector of limited means as to his richer brother. The tiniest scraps of ancient glass, bought for a few shillings and hung in the collector's window, bestow a touch of colour and brightness that no other material can give. As the collection grows, the pieces leaved together in panels grow in beauty, every added fragment enhancing its neighbour's richness by harmony or contrast. Here and there, in all probability, will be found some piece of real value, and even the smallest disjointed scraps are practically certain to increase in price with time, owing to the steady growth of the demand for such fragments by the larger collectors, and the limited nature of the sources from which they can be obtained.

Many instances could be given of this general advance in prices. A fragment bought in Edinburgh for five shillings in June, 1906, sold for nine guineas three years later. A broken panel picked up at a sale for less than a sovereign in the spring of 1898, and restored at a cost of less than two pounds, sold for forty guineas ten years later, only to change hands again immediately at a price exceeding one hundred pounds. In these cases expert knowledge of course played a part; but the amateur collector of average intelligence and perception can generally rely upon making a profit of his hobby.

Many books have already been devoted to the history of the art of glass-painting, and names of some of the most useful are given in an appendix. The subject of the evolution of glass design is too large to be gone into exhaustively here, but a short résumé of the principal developments of the art is necessary and shall be given as concisely as possible.

From the stained-glass collector's point of view, the main fault to be found with such books as have been already published is



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that they treat the subject on too large a scale. To describe the history and evolution of stained-glass design it is certainly necessary to give examples of whole windows, or of large portions of those windows, but it is precisely such large and important examples that are out of the collector's reach. He cannot hope to acquire them: in many cases he cannot even view them near at hand, and the result is that whilst he can perhaps identify a Decorated or Perpendicular window when he sees it, he is at a loss to pronounce upon such small fragments of glass as may frequently come into his hands. Though he is able to date this complete window or that with some approach to confidence, he may yet pass by a smashed heap of glass of the same period without recognition, and without a suspicion of its value.

It is to such a reader that this book is addressed. The general history of design is treated but briefly. Only a few necessary and typical examples of whole panels are illustrated; and the attention of the reader is drawn to the study of the small pieces of glass of which such larger panels are composed. Complete examples now rarely come to light, and when they do can only be acquired by collectors of ample means. Smaller pieces, on the contrary, are being discovered and are changing hands every day, and the collector who keeps his eyes open, and has some elementary knowledge of the subject, can often pick up scraps of real interest and value for a few pence. To impart that elementary knowledge—to enable the collector to buy with intelligence, to know the approximate date of this or that piece of dirty glass that may come in his way, to recognize it as genuine or spurious, and further to advise what he shall do with it once it is in his possession—is the purpose for which this handbook has been written.

Where former writers have dealt with the subject they have given examples of complete windows, of full length figures, bases, tall canopies, and the like. These, of real value to the student of design, are almost useless to the collector. Complete windows will rarely come his way, and therefore as little space as possible has been devoted to their description. Small fragments, on the con-

# PLATE I

## SOME THIRTEENTH-CENTURY FRAGMENTS

Fig. 1. From Amesbury, Wilts. Circa 1270. Pane of white glass from a geometrical grisaille. Heavy outlines in approximately circular curves. Foliage strongly conventionalized. Backgrounds darkened by cross-hatching. No attempt at shading.

Fig. 2. From Westwell, Kent. Circa 1290. Pane of white glass from a grisaille planned upon quarry lines. Pattern—treated in outlines as fig. 1—consists of single spray of foliage springing from an inset pane of pot-metal colour at base of quarry.

Fig. 3. [From "Stained Glass Tours in France," by C. H. Sherrill.] Subject medallion from the Louvre. Circa 1250. Subjects are cramped into the geometrical form caused by intersection of iron saddle and stanchion bars with frame of medallion. Glass in small panes, every separate feature being outlined by the leads. No shading colour. Elementary canopy-work occurs above lower subject. The border is a climbing repeated floral pattern and the backgrounds behind the medallions are planned in simple geometrical patterns.

Fig. 4. From Mr T. J. Bell's collection. Circa 1270. A foot, painted on pale brownish glass (for flesh). Note attenuation of toes, caused by the heavy outline between them destined to counteract the expansion of light. Some very slight smear shadow, unusual at this period.

Fig. 5. From Hitchin, Herts. Circa 1290. A hand in outline only on horn-coloured glass. Note large amount of outline colour, as in Fig. 4, and very rough approximation of shape of pane to shape of hand.







# PLATE I



Fig. 1.



Fig 2



Fig. 3

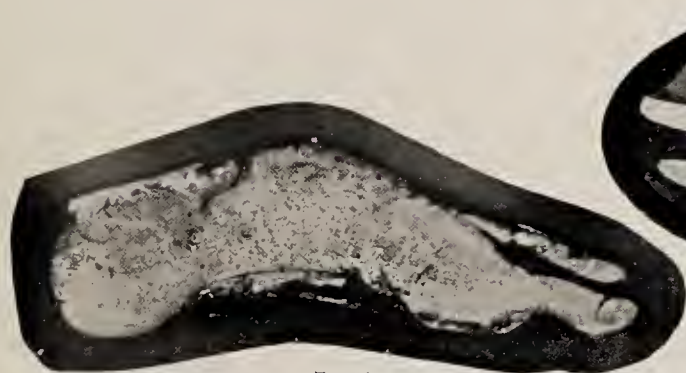


Fig. 4



Fig 5





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trary, can be found almost anywhere—fragments that are sometimes valuable, often beautiful, and always interesting. This book deals with many such, illustrating here a head, there a hand, elsewhere a scrap of drapery or canopy or background, a quarry, a border, drawing attention to its thickness, its texture, its evidences of age; in brief, its appearance to an untrained eye. In place of studying windows as a whole I suggest to the collector the study of the tiny panes of which they are composed, for not only are such scraps more easily procurable, but they contain in themselves evidences of age and authenticity as valuable as any yielded by the celebrated examples of complete windows scattered over Europe. He who can state with authority the date of any small fragment submitted to his inspection will be at no loss to pronounce upon whole windows made up of such component parts. The student of design alone, however skilled, may be deluded by almost any forgery: not so he who has made a study of the glass in which the design is executed.

It may be objected that this method of approaching the study of glass is beset with trivialities. To this one can but retort that it is by way of trifles that all intimacies are attained. Trifling scraps of glass will be most frequently met with by the collector; only by the study of such trifling evidences as these yield can he attain to the knowledge of the expert. And when a man with the whole history of glass design at his finger-ends is at a loss to decide the date or authenticity of any specific example, it is to the student of trifles that he must go for enlightenment.

At the outset the collector should be advised of what periods have produced the most glass, so that he may know what fragments he is most likely to encounter. To describe such marks and characteristics as will enable him to identify the work of each separate period will be a later task.

Briefly, then, there is no stained-glass now in existence earlier than the eleventh century, and the collector is as likely to meet with glass of this date as to find a dodo nesting in his garden. The little town of Hildesheim, in Hanover, claims to possess windows executed between 1029 and 1039, and the abbey of

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Tegernsee, in Bavaria, has windows alleged to date from A.D. 999, but it is very improbable that this latter date is correct.

Twelfth century glass is scarcely more likely to be found in private collections, at least in England. Winston claims that there is a fragment of a "Jesse window" in Canterbury Cathedral belonging to this period, and before the Commonwealth there were others in the building. But at that time Master Richard Culmer, the minister in charge of the cathedral, openly boasted of his share in their destruction. Complacently he refers to himself as "a minister on top of the city ladder nearly sixty steps high, with a whole pike in his hand, rattling down proud Becket's glassie bones when others present would not venture so high." There are also scraps of this early date at York, one, like the alleged Canterbury example, being a figure from a Jesse window. In France, more or less complete windows exist at Chartres, Le Mans, Vendôme, Rheims, Poitiers, St Denis, Angers and Bourges. There is a celebrated example—a figure of St Timothy—at Neuwiller, in Alsace, and scraps at St Serge, Fontevrault, Mont St Michel and Varennes, besides some examples, removed from the Cathedral of Châlons-sur-Marne, in the Musée des Arts Decoratifs at Paris. Many fine specimens, principally French, have been destroyed during the last century.

As has been already stated, far more early work remains in France than in England. But the art was growing in popularity year by year, and the next century provides countless examples both in France and England, though the former still outnumber the latter. To deal with them in detail is impossible. Even to give the barest list of French towns where they occur would fill more space than is here available, though some English ones will be found in an Appendix. The middle of the thirteenth century dates the earliest glass the private collector is likely to acquire, and its characteristics and appearance are dealt with more fully in an ensuing chapter.

The same remarks apply to the glass of the fourteenth century, but now the English examples outnumber the French. The immigration of French glass-painters, referred to above, was bearing



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fruit. Most of our English cathedrals and many parish churches of this period contain quantities of their work, the peculiarities of which are described in Chapter II.

The fifteenth and sixteenth centuries have left us many hundreds of windows, and the collector's first acquisitions are nearly always fragments dating from 1400 to 1600. After 1500 Gothic architecture had run its course, and windows changed in character with the buildings in which they were fixed. Little medallions, circular or oval, leaded up in the midst of plainly glazed backgrounds, came into favour. They were painted with scenes from scripture, armorial bearings, classic figures, ships—every conceivable variety of subject—and owing to their comparative abundance, their suitability for insertion in modern houses, and their low price they form the delight of the collector's heart. Swiss and Flemish artists excelled in them, executing them in rich colour with most delicately etched ornamental details. The English and North French examples are less rich, but are correspondingly easier to come by. They fell into disuse about the beginning of the eighteenth century, and with them ends the history of the rise and fall of mediaeval stained-glass.

Here, too, end most works dealing with the subject, nearly every writer deeming the decadent glass of the eighteenth century unworthy even of mention. "The secrets of glass-painting were lost," say they, and in this they are wrong. They were never lost, at least in England, though English writers alone seem ignorant of the fact. On the Continent the foremost authorities give the English glass-painters of the eighteenth century the due their countrymen deny them. Their work was bad, unquestionably, but it was an inartistic age in which they lived, an age when "Gothic" was a term of reproach—and stained-glass is nothing if not Gothic in its very essence. But they lost no "secrets." They kept their kilns alight, and when the Puginesque revival brought Gothic architecture into vogue again it was the glass-makers and not the glass-painters that were found wanting. The material—the glass—was atrocious, but the "secrets" of glass-painting—if they can be called secrets—had all been conserved, passed down

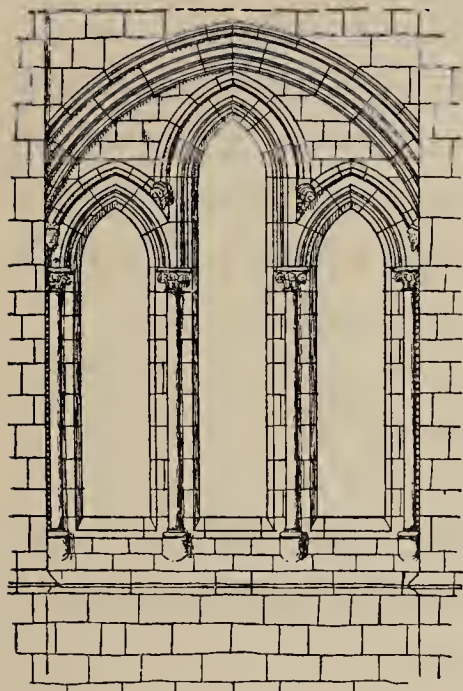


## A HISTORY OF ENGLISH GLASS-PAINTING

from hand to hand with scarcely a break from the seventeenth century. Take the city of York alone. Henry Gyles was born in 1672 and died in 1709. William Price died there in 1722, and William Peckitt in 1795. John Barnett, born in 1786, died in 1859, and Mr John Ward Knowles, still practising as a glass-painter in the same city, was born twenty-one years before Barnett's death. Some other names of prominent eighteenth century painters will be found in the chapter dealing with works of this period, but the annals of glass-painting in York alone suffice to prove direct succession from the English glass-painters of the seventeenth century to the present day.

## CHAPTER I. TWELFTH AND THIRTEENTH CENTURIES.

Material and methods of Manufacture—Theophilus—Thirteenth century technique—The influence of stonework on design—The first grisaille windows—The groining iron—Detailed characteristics of Early English glass—The first appearance and purpose of the canopy.



TYPICAL THIRTEENTH CENTURY WINDOW STONEWORK.

AS already stated in the introduction it is extremely unlikely that the private collector will meet with any quantity of glass dating so far back as the twelfth, or even the thirteenth century. There is, moreover, but little difference in the details and technique of windows executed during these two centuries, the glass-painter still adhering more or less rigidly to the Romanesque tradition in which his first works were designed, and the quality and appearance of his material scarcely

undergoing any change whatever. This being so, glass of the twelfth and thirteenth centuries may from the collector's point of view be dealt with in a single chapter.

Prior to the middle of the thirteenth century it appears to have been the general custom for glass-painters to make, as well as cut and paint, the glass they used; but about this date fabric-rolls and other such documents begin to make reference to purchases of the raw material of stained-glass windows—glass in sheets or pieces. Glass-making and glass-painting were beginning to develop into separate trades. Division of labour led to its

## A HISTORY OF ENGLISH GLASS-PAINTING

natural results: the glass-maker, now a specialist, soon learnt to produce glass of apparently better quality and in larger sheets than his forbears. Such improved material was immediately taken advantage of by the glass-painter—now also a specialist—and his designs underwent marked changes in consequence.

The painter-manufacturer of glass in the twelfth and thirteenth centuries was handicapped alike by tradition and his rude material. His figures were stiff and awkward, and his preponderating ornamental details—based on flowing Romanesque design—were chopped up into mosaics of tiny pieces. He was not sufficiently skilled, and his glass was too rough, to produce the flowing shapes which were the only design he knew, and his material, crude as it was, was too precious to waste. So he found a use for every little piece, leading it into his pattern as a bunch of berries, a single leaf, or tiny scrap of background (Plate I, fig. 4). Such fragments may now and then fall into collectors' hands, and as they are of real value and easily identified we will at once proceed to deal with their peculiar features.

Glass of this period is almost invariably very thick and generally very dense in colour. Its surface is undulating, often so much so as to be almost corrugated. White glass, as we now understand the meaning of the term, was beyond the skill of the early makers, and such light, almost silvery, touches as appear in early windows fixed in position, become in the hand mere dirty scraps of horn-like material, almost opaque, and never lighter in colour than a dull grey-green. Faces and hands were painted on reddish glass of every shade from flesh pink to brick red (Plate V, fig. 1). As for the deeper colours, generally raw blues and rubies and greens, with some coarse brownish yellow here and there, fragments seen near at hand resemble nothing so much as scraps of thin broken earthenware or glazed tiles.

Generally the outside of the glass, exposed to the storms and sun-glare of centuries, is pitted and corroded by weathering until scarcely a trace of the original surface remains, and at first sight it appears impossible that of like dirty fragments is composed the rich beauty of such windows as those at Chartres and Canterbury.



## TWELFTH AND THIRTEENTH CENTURIES

This is a difficulty for which the amateur must be prepared at the very outset of his dealings with early glass. Held in the hand it scarcely looks like glass, often resembling nothing so much as a piece of rotting slate. Even held to the light it often shows no trace of colour. Sometimes the only way to ascertain its character is to hold it over a hole cut in a large piece of card in such a manner as to shut off all surrounding light, and so held to peer through it directly at the naked sun. This drastic proceeding will generally betray its colour; but one can scarce believe that a mere framing with black lead-lines in juxta-position with other pieces of equal depth will produce the gorgeous effects which distinguish the windows of the period with which we are now dealing.

For this miracle the lead-lines, unsightly though they may appear at first sight to the amateur, must be thanked. Their interlacing dense black outlines provide the only contrast which could possibly throw such coarse material into sufficient relief to show it as the strong rich colour which it really is.

Early glass was made in two ways, resulting in two different shapes of sheets, tables, or pieces, as they are variously termed by different writers. In both cases the molten material was taken from the furnace at the end of a blow-pipe and blown into as large a bubble as could be conveniently handled. To make circular sheets, resembling modern crown glass, this globular bubble was attached to a solid iron bar, known as a punt, at the point farthest from its junction with the blow-pipe, and the pipe gently detached. The punt was then spun between the hands, the bubble revolving on it as upon an axis, centrifugal force opening the aperture made by the blow-pipe until the glass was roughly a flattened disc, the edges of the aperture expanding to become its rim, and a "bull's eye" remaining in the centre after the punt was detached.

The other method, which produced sheets of glass approximately rectilinear in outline, is known to modern glass-makers as the "muff" process. The bubble instead of remaining globular was allowed to hang downwards until it lengthened to a rudely cylindrical form. It was then detached from the blow-pipe and

## A HISTORY OF ENGLISH GLASS-PAINTING

split down its length, the separated edges being flattened out to form two sides of the finished sheet. The monk Theophilus in his *Diversarum Artium Schedula* describes this method at some length, though the vagueness of his description has given rise to the belief that he was not himself a practical glass maker. He makes no mention of the process by which circular sheets were manufactured, and partly on this account it is assumed that some portion of his writings has been lost. This method was certainly in popular use as early as the other, and the glass made in circular form presents marked evidences of its origin:

The undulations or striæ on its surface vary much in appearance, but they may be distinguished from the "reaminess" of modern imitations at a glance. The modern material, known to glass-painters as "antique" glass, is blown in "muff" form before being flattened into sheets, and the lines upon its surface are intentionally irregular. Sometimes nearly or quite parallel, sometimes interlacing, they very rarely curve with regularity, and this the striæ in early crown glass nearly always do. Owing to the employment of centrifugal force in its manufacture all lines and undulations on its surface tend to be parallel with the rim of the circular sheet and thus to follow the course of segments of a circle. To a certain degree this applies to glass of all times prior to the nineteenth century, but owing to the primitive methods of manufacture and also probably to the small size of the early "pieces" or "tables," the segmental lines are more clearly defined and more sharply curved the earlier the date of manufacture.

In spite of the prevalence of corrosion, due to centuries of exposure, some of this early glass is of extraordinary hardness. Where corrosion does occur it generally takes one of two forms. Either the whole exterior surface of the glass perishes and becomes covered with a hard chalky "patina," or it decays in pits of well-defined circular shape, sometimes running one into the other, forming irregular cavities, but more generally separate, and scattered over the whole surface of the glass (Plate XXIX, fig. 2). But in many cases corrosion is entirely absent. Roughly though this early material was made, it was durable. Four centuries later it is rare



## TWELFTH AND THIRTEENTH CENTURIES

to find glass without some traces of corrosion, even though it be but a slight patina, a mere roughening of the surface, but much of this early glass remains as clear and smooth as when it was made.

This corrosion, or weathering, is perhaps the most infallible test of the age of glass, but it is marvellously erratic in occurrence, and so many attempts have been made to copy it or turn it to the advantage of the forger of stained-glass that a whole chapter has been devoted to its discussion. With regard to its appearance on glass prior to the fourteenth century we may here content ourselves with saying that if it appears, which it often does not, it is unmistakable by reason of the large size and circular appearance of the pits it makes, or by the chalky deposit of the patina. Where it does not appear, the undisfigured striæ, deep, segmental and parallel, are characteristic in themselves.

His glass once cut to shape, the early painter worked in a broad, crude manner, not to be mistaken for the work of any subsequent period. Half-tones were unknown to him: there was very little translucency in his colour, and he made no attempt at delicacy, no effort to round off his clumsy black outlines by shadows. His only material was a brown opaque enamel, and with this he contented himself by coarsely outlining the details of his design. His faces and drapery were grotesquely drawn in stiff heavy outlines alone (Plate II, fig. 1). Hair, for instance, he would block in densely black (it must be remembered that opacity is synonymous with blackness when speaking of glass, a transparent material) and then scratch out little conventional curls from the black mass with the point of a stick or the handle of his brush. Hands and feet were treated almost in the same way: coarsely outlined, with the interstices between fingers and toes blocked in bodily with colour as black as the surrounding lines of solid lead (Plate I, figs. 4 and 5). Often where ornament was required he gave the glass a level coat of black all over and scratched out the design thereon in thin white lines and dots. Sometimes more than two-thirds of the area of the glass is covered with paint in this manner. Nowhere is this more evident than on scrolls bearing inscriptions. The form of



## A HISTORY OF ENGLISH GLASS-PAINTING

letters employed—generally termed “Lombardic”—is characteristic in itself, and the letters are invariably scratched out of a flat coat of the opaque outlining enamel so as to show white letters on a black ground (Plate II, fig. 2). The few attempts at shading that occur are merely a succession of more black outlines close to one another, sometimes parallel or slightly radiating, more often obliquely “crosshatched” or reticulated. No attempts were yet made to produce shadows by such other means as stippling with the point of a brush, or by smearing with translucent or semi-translucent enamel. Nearly all the painting, whatever its purpose, was in absolute black upon the coloured mosaic of which the window was composed. Black on dense colour: hence the invariable darkening of interiors lit by such early windows, a twilight in which the depth and glory of the coloured glass shines with a brilliance enhanced threefold by comparison.

Generally the designs of the period were directly affected by the shape of the contemporary window-openings they had to fill. The wide round-arched Norman apertures rendered necessary iron strengthening bars at close intervals for the support of their glazing. Such bars, horizontal and perpendicular, divided the window into a series of rectangular panels, each containing a separate subject, or subdivision of the main subject. With time these bars themselves departed from their rectangular arrangement and began to assume some ornamental importance, and the panels they contained developed from plain squares or oblongs, arranged side by side in tiers, into ornamental medallions, circles, and quatrefoils, in which the separate subjects were framed (Plate I, fig. 3).

Side by side with the richly coloured medallion subject window was developed the purely ornamental window, glazed in geometrical patterns and painted with interlacing conventional ornament of floral character. Very little pot metal, i.e. glass intentionally coloured through its entire thickness at the time of manufacture, was used in these windows, which principally were glazed up in the so-called white glass of the period. From its grey-green colour such windows have been called “grisaille,” a name inappropriately

## PLATE II

### THIRTEENTH CENTURY FRAGMENTS

Fig. 1. In a private collection. Circa 1280. A fragment of coloured thigh-drapery treated in outline only. Note narrow and parallel folds, and especially the three separate ones, semi-elliptical in form, indicating drapery clinging closely to the curves of the figure.

Fig. 2. From Amesbury, Wilts. Circa 1270. Portion of an inscription. White Lombardic capital letters scratched out of laid outline colour.

Fig. 3. From Wilton, Wilts. Circa 1280. An early canopy. Circular shafts, Early English capitals, arch formed by margin to light turned inwards and abruptly cutting across background of figure. Small brickwork turrets and other features in potmetal placed upon it arbitrarily.

Fig. 4. From Salisbury. Circa 1270. Intertwined border to a grisaille window. Conventional white floral pattern on deeply coloured background, separated by line of beading from body of window.

Fig. 5. From Beverley. Circa 1280. Conventional floral border as above, but showing repeats of leaves springing from one central stem.



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# PLATE II

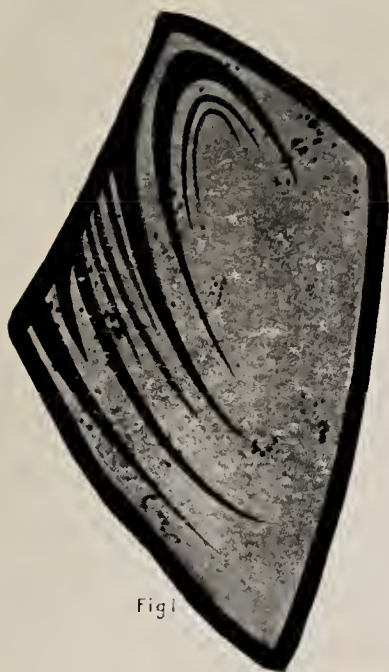


Fig. 1



Fig. 2



Fig. 3.



Fig. 4



Fig. 5





## TWELFTH AND THIRTEENTH CENTURIES

applied ever since to all geometrical glazing, whether in white or coloured glass. Panes of glass from these grisaille windows present a very similar appearance to those from the figure windows coeval with them. They are thick, coarse of texture, and dense in colouring. The patterns upon them are in simple lines, coarse and opaque, with occasional crosshatched backgrounds throwing the floral design into bolder relief (Plate I, figs. 1 and 2).

The use of the diamond for cutting glass was unknown before the sixteenth century, and the results of the earlier primitive methods are recognizable at sight. The glass was first cut roughly to shape by placing a drop of water on the edge of a sheet and touching it with a hot iron. The iron was then drawn across the sheet and a crack followed it until the required piece was detached. Then, gripping the edge of the fragment with a "grosing iron" (Fr. *gresoir*), a notched flat strip of iron, the glazier chipped off a small spall of glass by downward pressure. Other pieces followed tediously until all superfluous glass had been chipped away and the pane was of the shape desired. Plate XXIX, fig. 3, shows two grosing irons and some examples of edges cut by them. The larger iron is of the shape generally drawn by fifteenth century heralds, and the smaller one dates from the eighteenth century. Beside the larger iron is a pane from the lower cusped half of a Perpendicular tracery piece. It is cut from the centre of a crown sheet, the bull's-eye being behind the little canopy daïs with which it is painted. Considering the remarkable difference in thickness between the bull's-eye and that portion of the sheet immediately surrounding it, this piece is most adroitly cut, for the grosing of the long thin piece which projects from the upper right hand corner must have been a matter of considerable difficulty. Adjoining it is a piece of yellow-stained grisaille from the transition period between Decorated and Perpendicular, say about 1360. This piece shows far rougher workmanship, the edges being chipped like a flint arrow-head, whilst just in front of these two examples is another laid flat to show the characteristic chipped edge of the fourteenth century. Opposite, resting on the head of the old soldering iron, is a Decorated border, date about 1317, also with a somewhat



## A HISTORY OF ENGLISH GLASS-PAINTING

rudely chipped edge, and again in front is an S-shaped fragment of Perpendicular background, so intricately curved that even if working with a diamond one would need to exercise the greatest possible care to avoid breakage in cutting it. Other grooved edges may be seen in Plate XXIX, fig. 1. The bottom piece of glass in the heap is the same Decorated border as rests on the soldering iron in fig. 3. Next above it is a smaller Perpendicular fragment with almost smooth edges, showing the degree of skill the glazier had acquired in the use of the grooving iron during the fourteenth century.

From the fourteenth century onwards the glazier, despite his primitive implements, was wonderfully adept. The edges of his thinner panes are exquisitely finished, one tiny chip succeeding another in serrations no larger than the perforations round a postage stamp, and affording an excellent grip upon the surrounding leads. Only these tiny notches betray that the glass was not cut with a diamond. But in the twelfth century the glass was thicker, the glazier less expert, and, as has been seen, the spalled and chipped edges of his panes resemble nothing so much as the conchoidal fractures round a palæolithic flint arrow-head. In fact, much of this early glass resembles flint in its horny lack of transparency no less than in the broken and ragged condition of its edges.

To recapitulate, then, twelfth and thirteenth century glass may be distinguished by:

- (a) Its thickness and lack of transparency.
- (b) The striæ of its crown glass, deeply marked, frequent, parallel, and nearly always following the segment of a circle.
- (c) The condition of its surface: either entirely free from corrosion, or pitted with large well-marked circular holes, or evenly rotted all over and covered with chalky patina.
- (d) Its heavy and absolutely black outlines, and the use of cross hatching as the only attempt at shading (Plates I and II).
- (e) Its coarsely chipped edges.

## TWELFTH AND THIRTEENTH CENTURIES

- (f) The small size of the pieces employed.
- (g) The "Lombardic" character of the lettering in inscriptions. The letters are always scratched out of a level opaque coat of outline-colour so that they show the colour of the glass—generally white or deep yellow—on a black background (Plate II, fig. 2).
- (h) The employment of a dull pink or brownish glass for human flesh—hands, feet and faces (Plate V, fig. 1).
- (i) The marked conventionality—with more than a hint of lingering Classic or Byzantine influence—in the foliage. The small size of the panes necessitates all foliated features to be drawn in a succession of short stalks and leaves. Long flowing scrolls of foliage are absent (Plate I, figs. 2 and 4).
- (j) The drawing of figures, which are stiff, elongated and badly proportioned. In the earlier examples the narrow folds of the drapery seem moulded on the limbs (Plate II, fig. 1).
- (k) The character of the colouring, which tends to be barbaric in its gorgeousness. A vivid primary blue, raw greens varying to deep olive, and a deep brown-yellow prevail. The ruby is exceedingly rich and varies to extreme shades owing to the faulty manufacture.

Towards the end of the thirteenth century the development of wide-arched Norman architecture into the Early English style, with its narrower single or double lancets, had a great influence on the design of the glass contained in them. Such narrow openings needed no elaborate iron grilles for the support of their glazing, and the medallion window began to give way to another type of design. Single figures, larger than those in the little medallion subjects, were found to be more effective and more easily recognizable at the greater heights permitted by the loftier buildings of the new style. Heavy mullions and narrow lancets admitted less light than the wide windows preceding them and, probably for this reason, the grisaille window remained in favour. Attempts



## A HISTORY OF ENGLISH GLASS-PAINTING

were made at combining it with the new large single figures, but placing such figures baldly on grisaille backgrounds produced contrasts too sharply defined to be satisfactory. The white geometrical panes, dense though they were, were yet too transparent to support the deeply coloured figures set upon them. Need evolved an architectural framing, no doubt copied from the canopies over the stone niches that protected exterior sculptured figures from the weather, and thus the first modest canopies separated figures from grisaille backgrounds. Two centuries later they were monstrous, sometimes filling more than half the window, but these early attempts were merely inoffensive frames to the figures they enclosed (Plate II, fig. 3).

In minor details, however, scraps of glass of the thirteenth century are almost indistinguishable from those of the twelfth. Towards its close some rude attempts at smeared shadow began to oust the coarser but perhaps more effective crosshatching (Plate I, fig. 4), and the glass itself tends to become thinner and lighter in colour, whilst the conventional foliage of the grisaille windows has more grace and spirit. Floral mosaics, on the other hand, are generally stiffer and less flowing, Gothic feeling here beginning to show its influence as against the inherited Romanesque tradition.

But the differences are only relative. Examples can be cited from the end of the thirteenth century possessing all the distinctive attributes of glass painted nearly two centuries earlier. Sure discrimination between the work of the two periods is only to be attained by familiarity with, and close attention to, such examples as may come in the collector's way.

With the opening of the fourteenth century occurred the immigration of French glass-painters referred to in the introduction, and by their activity through the next half-century the art was almost revolutionized. One or two cunning discoveries on the craftsman's part aided the now rapid evolution of design, and the stained-glass window painted at the end of the fourteenth century can hardly be recognized as the product of similar methods to those employed a century earlier. To these alterations and their results the next chapter is devoted.



### PLATE III

## EAST WINDOW, EXETER CATHEDRAL

An anomaly. Perpendicular stonework—circa 1390; glass mainly Decorated—circa 1320. The three centre lights present a most unusual feature—a copy of Decorated glass by a Perpendicular painter.

The original window of six lights was painted about 1317 and replaced by the present nine-light window in 1389. The lights of the old window were fitted with Perpendicular bases and reinserted in the three openings on either side, with four transitional figures above them (circa 1370). The three centre lights were painted to match the sides, and the three openings above them filled with other Perpendicular figures. The upper tracery tier of three openings contains early Decorated figures, probably from the original window. Peckitt restored the whole window about 1765 and destroyed much of the tracery, substituting for it gaudy sheet glass leaded in geometrical patterns. This was removed about 1894, when the modern glass at present in the smaller tracery openings was inserted.



# PLATE III EAST WINDOW, EXETER CATHEDRAL

The window is a fine example of the work of the great master glass painter, John de Winton, who lived in the 14th century. It is a large window, and is one of the best preserved in the cathedral. The window is divided into three parts, and is decorated with a fine design. The design is a representation of the Last Judgment, and is a very fine example of the work of the great master glass painter, John de Winton.

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PLATE III



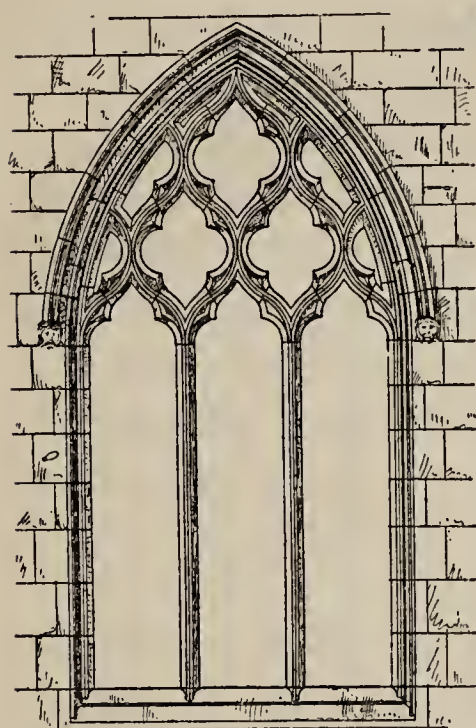




## CHAPTER II.

### THE FOURTEENTH CENTURY.

A period of rapid change—Yellow stain—Abrasion of flashed glass—The popularity of grisaille—Early figures of donors—The first heraldic glass—Fourteenth century technique—Borders—Decorated canopies—Inscriptions—Langland's satire—Detailed characteristics of Decorated glass—The Jesse window.



TYPICAL FOURTEENTH CENTURY WINDOW STONEWORK.

WITH the fourteenth century commenced the most rapid period of evolution that the craft of glass-painting has ever experienced. In the year 1300 traces of the early traditions still lingered; heavy colouring, small mosaic methods of glazing, crude drawing, primitive technique: yet before 1400 Perpendicular glass, almost pictorial in treatment, light in colouring, of masterful design, and consummate craftsmanship, was to be seen everywhere throughout Western Europe.

The whole history of Decorated glass, a style beautifully adapted to its material, is contained within that hundred years.

The first and most important departure affecting design, the discovery of yellow stain, took place during the earlier half of the century. The legend is that St James of Ulm, patron of glass-painters, when working at Murano let fall a silver sleeve-link upon a tray of glass on its way to the kiln. When the fire was drawn it was discovered that wherever the silver had melted and run the glass had turned a clear golden yellow. It is a pretty story, but apocryphal, for as a matter of fact yellow stain had been discovered years before St James was born, which event took place

## A HISTORY OF ENGLISH GLASS-PAINTING

either in 1407 or 1411. But no doubt some such accident as it relates was the cause of the discovery.

No such a prize had yet gladdened the glass-painter's heart. It saved a lead-line! A single piece of glass could now be of two colours, yellow and white—a thing hitherto impossible. Tiny touches of yellow—gold beads and embroidery of draperies, for instance—features so minute that lead lines around them would have rendered them clumsy and ridiculous—could now be picked out in stain on white, or backgrounds stained to show white pearls on gold. Faces, on white glass instead of “flesh colour,” were framed in gold hair, adorned with gold crowns, backed with golden halos (Plate V, fig. 3). Seizing on their new material with eagerness, glass-painters used it for a hundred different purposes, for some of which it must be admitted it proved most unsuitable. The writer has seen the faces of the Three Persons in a fifteenth century Trinity a bright golden yellow, presenting a most startling effect, which the painter probably intended for a glory as of sunlight. With accustomed use, however, stain took its proper place in the design, and in all shades of yellow from deep orange to a pale sulphur tint has beautified windows everywhere during the six centuries that have elapsed since its discovery.

Another mode of avoiding a lead-line—incorrectly attributed by some writers to Jan Van Eyck—was discovered during the fourteenth century, but as it entailed considerable added labour it was only employed in cases of emergency, and its use never became ridiculous, as the abuse of yellow stain occasionally did. This was the practice of “abrasion,” a grinding away of the surface of “flashed” glasses, i.e. glasses not coloured throughout like pot-metals, but coated on one side with a thin film of a different colour from the body of the sheet.

Ruby has always been a “flashed” glass, and it was naturally upon ruby that abrasion was first practised. The red colour known by this name was so dense that had it been made in a sheet of only sufficient thickness to bear handling it would have been absolutely opaque, and consequently of no more colour value in the window than a level patch of black. Made thin enough to



## THE FOURTEENTH CENTURY

admit light, it was no thicker than a sheet of paper, and consequently was far too fragile for any practical purpose. The only way out of the difficulty was to mount a thin film of ruby on a thicker sheet of white to give it the required strength, and this was invariably done. In the fourteenth century it was discovered that white passages on the ruby could be produced by grinding off the ruby film where required by the use of emery or some similar hard medium, and thus another method of obviating lead-lines was at the glazier's disposal. These two discoveries, made about the same time, never again fell into disuse, and developing through the centuries led up eventually to the exquisite and delicate beauties of the Swiss glass of the sixteenth and seventeenth centuries. The fragments numbered 1, 2 and 3 on Plate XVI are excellent examples of abrasion on ruby, blue and green flashed glasses. The green piece—a collar from an amice—and the blue pane abraded to show the golden lilies of France are of especially fine workmanship.

By the beginning of the fourteenth century the glass-makers were doing excellent work, especially in the north of France. Rouen was an important market for their wares, and English fabric-rolls again and again refer to purchases there. Their glass was clearer and smoother than ever before, and much of it has since proved marvellously durable.

The well preserved border leaning against the large circular medallion in Plate XXIX, fig. 2, is Rouen glass, imported about the year 1320. In this, as in many other contemporary examples, the striæ have become mere faint undulations and the glass is nearly pure white. This last, however, was rare, and where it occurs the glass will generally be found to be of French manufacture. The prevailing tone of "white" glass, for the first half of the century at least, was the greyish-green which, used for the geometrical windows still remaining in favour, gained for them the name of *grisaille*. Whether white or coloured, all glass still varied considerably in thickness. The central bull's-eyes and thick rims of the circular "crown" sheets rendered this inevitable, but the effect of the varying thicknesses was rather pleasing

## A HISTORY OF ENGLISH GLASS-PAINTING

than otherwise, giving an effect of tints agreeably diversified. These circumstances, added to the now rapid evolution of the Decorated stonework of windows, speedily had marked effects upon the design of the glass they contained. The middle years of the century, say from 1330 to 1380, cover the period of greatest change. By 1320, it is true, the medallion window had fallen into disfavour, but grisaille, more delicately painted than hitherto, was still at the height of its popularity. Whole windows were filled with it, in many cases diversified by a new feature—heraldic work—but in others still devoid even of that slight enrichment. Canopies surmounting single figures were still imposed on it as a background. The geometrical intricacies of the new Decorated stone tracery work were repeated in but slightly varied forms in the glass that filled them. The geometrical planning remained spaced to perfection, as befitted an age of geometry, but the floral details became narrower, lighter and more angular as the true Gothic touch was evolved. Compare the pane from Amesbury, which dates from about 1275 (Plate I, fig. 1), with another from the same church sixty years later (Plate IX, fig. 2). Both are from geometrically planned grisaille windows, both show outlined floral design on white glass, and yet it would be difficult to conceive designs less alike. These conventionally treated floral patterns painted upon geometrically spaced panes occur everywhere, and, from the glass-painter's point of view, the Early Decorated period may very well be described as the age of grisaille. The long narrow lights of the windows, separated by their long upright mullions, gave height to the buildings, but the glazier tried to counteract this in some degree, by scheming his designs wherever possible in horizontal bands. A row of figures or simple subjects side by side, extending right across all the compartments of the window, became a favourite arrangement. Architectural bases or pedestals below them—sometimes displaying a row of shields—more canopy work above, and over the canopies more grisaille with a conventional border; figures, canopies, shields, and all the other ornamental details lending themselves to an arrangement in tiers, disposed horizontally across the whole width of the window.



## THE FOURTEENTH CENTURY

In this century it first became the custom to insert little figures, portraits of the donor of the window or of the founder of the building it adorned, at the base of the window itself (Plate XI, fig. 2). Often such figures, of noble or arms-bearing family, were accompanied by shields bearing their coat armour, or were dressed in armorial tabards (Plate VI, fig. 2). At so early a period portraiture was a doubtful business, but the heraldry placed the donor's identity beyond doubt. No ornamental details are so effective in glass as armorial bearings, and their use speedily became the fashion. Their bright colouring, their simple yet ornamental details recommended them strongly. Moreover, they possessed a personal interest; besides having great decorative value, they provided an illiterate age with pictorial chronicles of history and genealogy. As the centuries progress they appear in greater and ever greater profusion. The first simple shields of paternal arms, modestly occupying only one corner of the window, soon became impaled and quartered, doubled and trebled and quadrupled with every new family alliance, until not only bases but tracery openings, borders and canopies all display heraldic achievements. In later years of decadence we often meet with windows entirely heraldic from sill to point.

In grisaille windows they were used in series, occupying the centres of the repeated geometrical panels, until the floral details of the grisaille, originally the whole and only *motif* of the composition, were relegated to a minor position and became mere unobtrusive backgrounds to the blazoned annals of the family by whom they were erected.

Being generally of small size compared with the figures they accompanied, and requiring in their varied colours and details more technical skill than the simple black and white of the grisaille, they offered opportunities for greater ability on the part of the glass-painter, bringing into play his best craftsmanship aided by the new discoveries of stain and abrasion. This, perhaps, was another reason for their rise in favour, for the fourteenth-century artist delighted in "showing off" as much as any of his successors.

The quality of workmanship, indeed, improved rapidly through-



## A HISTORY OF ENGLISH GLASS-PAINTING

out this century. Technique made strides. The early clumsy attempts at smeared or cross-hatched shadow gave way to stippled gradations, more delicate and translucent, giving roundness and character to the subjects treated. Drapery noticeably becomes more realistic; the folds are still long and straight, but they have become more rounded, almost Düreresque in their decision and rotundity, by comparison with the stiff lines which indicated garments in the thirteenth century. Patterned stuffs, which were merely glazed in alternate broad bands of two crude colours as late as 1320, are by 1390 leaded up in exquisite diapers—fleurs-de-lys, lions, or other heraldic and ornamental details leaded up in white and yellow stain upon the rich colour of the robes as background. On Plate IIIA are two figures of the same saint—St Catherine—from the same window, one dating from 1317 and the other from 1389 which illustrate this admirably. It seems inconceivable that they were produced by similar processes, in the same town, at so short an interval of time.

The earlier figure (fig. 1) is treated entirely in pot-metals, even the face being leaded up in one separate pane of the brownish-pink that Decorated glass-painters were wont to persuade themselves looked like flesh colour. The under-robe, glazed in broad horizontal stripes of ruby and green, shows an early attempt at rendering a patterned stuff. Yet, within eighty years, the treatment had changed in almost every detail. The smaller and later figure has face, hair and crown all painted on white glass, the horizontal lead between the crown and the face only being rendered necessary by the large size of the head and halo together. The clumsily striped under-garment has given way to a magnificently brocaded mantle, embroidered with golden lions upon a ruby background. The wheel of the old figure is represented in silhouette only, white on black; the later one is drawn in perspective, its rim stained and the teeth left white, and between its spokes can be seen a continuation of the background diaper—a succession of small circles set closely together. Nothing shows more clearly the strides the art had taken in the intervening period than comparison of these two figures.

## THE PROGRESS OF GLASS-PAINTING IN THE FOURTEENTH CENTURY

Fig. 1. St Catherine of Alexandria. From the East window of Exeter Cathedral. Circa 1317. Note the heavy colouring, stiff drawing and awkward pose of figure. Except for the wheel, scratched out in silhouette from solid black paint, the figure contains no white glass whatever, and even the white of the canopy shaftings is broken by green corbels and yellow string-courses. Yellow stain is absent and the flesh of face and hands is painted on purplish brown, the pale green head-dress and ruby halo being leaded up separately from the face. The under-robe shows an attempt at variation of colour, being leaded in alternate stripes of green and ruby.

Fig. 2. Another figure of the same saint from the tracery of the same window. A.D. 1389. Though only about sixty years later this figure shows what strides technique had made. It is far more graceful in pose and richer in detail. The head, hair, crown and halo are now treated on the same panes of white glass, the necessary variations of colour being produced by yellow stain. White glass predominates, occurring in the ermine cape and lining of the mantle, the scroll with name, the sword and wheel, and the belt and breast-fastening of the blue under-robe. The canopy is entirely of white, varied only by touches of yellow stain. The wheel is drawn in perspective, the background diaper being visible between its spokes. Such crude variations as plain stripes of colour are now relegated to the background, which is diapered with a repeat of small circular rosettes; and the outer ruby mantle is embroidered with the golden lions of England—a naive mediaeval attempt to convey the idea of royalty. The blue robe is also richly diapered in outline, and comparison of the whole figure with its neighbour provides a most excellent illustration of the changes in technique resulting from the rapid evolution of glass-painting during the middle half of the fourteenth century.











Fig. 1



Fig. 2





## THE FOURTEENTH CENTURY

Until the latter end of the century figures were almost invariably placed upon coloured backgrounds, generally "laid flat" in stippled matt, out of which patterns resembling the designs of damascened work were picked with the point of a stick. These patterned or "diapered" (Fr. *damassé*. German *Damass*.) backgrounds are almost universal from this date, and may be specially noted on coat-of-arms, in which their occasional heaviness and frequency sometimes renders the smaller bearings confused and somewhat indistinguishable. A certain rich blue, treated in this way as a background to figures, is so common as almost to be characteristic of the period.

Floral borders to the lights remained in favour until the end of the century, though in many later examples the canopy-shaftings that flanked the subject panels partly overlaid, and in some cases entirely obliterated them. In such instances they re-appear above and below the tiers of subjects. They naturally tend to become narrower as the lights of the windows increase in number and decrease in width. Cramped by the narrower space allowed them they gradually exchanged their earlier rounded curves and rich interlacings—derived from the would-be flowing lines of the thirteenth century—for stiffer and more angular drawing and less colour.

The thirteenth century border was a wide mosaic of tiny panes rich in colour; their design floral intricacies sweeping in rounded curves over coloured backgrounds (Plate II, figs 4 and 5). The early fourteenth century provided the painter with larger panes of glass, whilst cutting down the width at his disposal, and his earlier borders were a compromise. He still retained his rounded forms, but they were painted, not glazed, generally in yellow or white upon a band of colour (Plate VII, fig. 1).

The new borders following upon these were still conventionally floral, still climbed in a repeating pattern of leaf and flower and fruit up either side of the lights from base to point, but they bore no other resemblance whatever to the rounded curves they displaced. Their angular stems zigzag from side to side of the border (Plate VII, fig. 6), or run rigid and straight through each repeat (Plate VII, figs. 3 and 4), the leaves and flowers they



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bear issuing from them awkwardly at regular intervals, a coloured patch of background dividing each from its neighbour.

Plate VII, fig. 3 shows a typical border, date about 1317, beside two intermediate forms, much alike, but one true Gothic in its angularity (Plate VII, fig. 5), and the other obviously derived from the last illustration but one (Plate VII, fig. 2).

Later they were varied by yellow stain—white leaves and yellow stem (Plate VII, fig. 4), or yellow leaves and white stem (Plate VII, fig. 6). These two examples show what pains the painter was at to vary a feature of which he was already weary. Narrower and narrower they grew, more intricate, more fussy, and more monotonous with every decade, pursuing their natural path to extinction until the artists of the next century, after a few struggles to adjust them to new conditions of size and treatment (Plate VII, figs. 7 and 9), centred their greater pictorial skill on their subject-panels and rejected them altogether, generally substituting for them a treatment of alternate blocks of colour and white, the latter with conventional crowns, foliage, or initials upon them. A perpendicular crown border is shown on Plate VII, fig. 10.

The stiff climbing floral border was at its best in the early fourteenth century: before that came the rounded arabesque-like forms; later, heraldic and other more interesting details began to oust the repeats of flowers and leaves, now becoming cramped and decadent and wearisome. It is very seldom that the running floral border is used subsequent to the fourteenth century, though an example—and a very fine one—is shown on Plate VII, fig. 12, which is certainly not earlier than 1460.

Canopy work went through a complete cycle of changes during this, the most truly Gothic of all the centuries. From its commencement the simply designed and deeply coloured framework around the thirteenth century subject-panel developed rapidly in size and decorative importance. It still contained a good proportion of pot-metal colour, notably a brownish yellow much used for crockets and finials (Plate VIII, fig. 2), but white glass is used in larger quantities with every increase in size. Arches over

## THE FOURTEENTH CENTURY

subjects are cusped, the gables above them take on an equilateral or steeper pitch, harmonizing with the new Decorated pitch of roof, and the canopies show more fanciful details than hitherto. Coloured string-courses and corbels are indicated; brickwork and little windows with tracery vary their square shafts and circular turrets (Plate VII, figs. 3 and 11), and for the first time the canopy becomes a feature of importance in the design. No longer a mere frame dividing coloured subjects from grisaille backgrounds, it henceforth nearly always occupies as much space in the window as the subject it is supposed to contain, and sometimes exceeds it in size. We shall see later to what absurd proportions it attained in the fifteenth and sixteenth centuries, by which time portraits of donors and the canopy work over them often squeeze the legitimate subject of the window out of sight; but the fourteenth-century canopy, though often very large, rarely became too preponderant in the scheme of decoration for which it was designed.

Some good dated examples of canopy fragments of the period are shown on Plate VIII. The strong metallic yellow in the top left-hand corner of the panel occurs very frequently, more especially in the rows of crockets that run up either side the main gable of the canopy. The general proportions and design of Decorated canopy work are shown admirably on Plate XXXIII, fig. 1, and on Plate III, where the three outer lights on either side the window date from about 1320. The three centre lights are seventy years later, being Perpendicular work, and they display a feature unique in English glass in that they were painted to match the design of the side lights—a design entirely characteristic of the earlier style. Such a thing as a Gothic painter deliberately putting back the clock to copy the work of his predecessors is unknown elsewhere in England, though something of the sort was done at Strasbourg, where some windows, saved from the fire that destroyed the cathedral, were re-inserted in the building that replaced it.

One feature of fourteenth-century glass seems to have escaped the gradual though rapid evolution of style which marks the



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Decorated period. Inscriptions in the first half of the century were scratched out, light on a black ground, in capital letters of what sign-painters now call "Gothic" character. This treatment is identical with that obtaining for the preceding two centuries, and save that the lettering is somewhat more uniform in size and regular in arrangement than the earlier "Lombardic" text, there is but little apparent difference between them. The inscriptions in Sir William Ferrers' window at Beer Ferrers, Devon, circa 1330 (Plate VI, fig. 2), and below the figure of St Peter, from Stamford (Plate IV, fig. 2), do not materially differ from those in the St Thomas à Becket window in Trinity Chapel at Canterbury, painted a hundred years before. But about the middle of the century the style abruptly changes, with apparently no intermediate forms, to what we are now accustomed to call "black letter" or "church text," no longer scratched out of laid black, but traced with the point of a brush (Plate IV, fig. 3). The Toller window in St John's Church, York—probably contemporary with or even a few years earlier than the Ferrers window—may be cited as showing an early example of this lettering, so characteristic of the broad quill with which contemporary MSS. were written, and as different in appearance from the foregoing style as it is different in method of workmanship. Whatever the cause of this abrupt change, so contrary to all accepted usage of design, the net result to the glass-collector is that in this century, distinguished though it be by the most pronounced characteristics of any Gothic period, no one style of lettering can be regarded as typical.

Many of the inscriptions on windows, as may be seen in the example from Beer Ferrers, set forth the names and conditions of their donors. The practice soon became universal, but at first popular taste was against it, and doubtless helped to keep the donors and their titles within reasonable limits. William Langland, to whom is attributed *The Vision of Piers Plowman*, referring to the windows in the Church of the Franciscan Friars, in London, speaks with contempt and indignation of the donors for having their names inscribed upon them. He reminds them of the Gospel precept: "Let not thy left hand know what thy right hand doeth,"



## PLATE IV

### DECORATED SINGLE FIGURE TREATMENT

Fig. 1. From Mr Grosvenor Thomas's collection. Circa 1350. An archbishop saint. Cope white, dalmatic green, background ruby. Note waved lines of hair of figure in this and fig. 3. The canopy, with brickwork, windows, and large front gable with foliated crockets is essentially Decorated, though the presence of yellow stain indicates an approach to the period of transition.

Fig. 2. From Stamford Church, Northamptonshire. Figure of St Peter under a canopy. Note flowing border outside shaftings, also general "wavy" effect of foliage distributed throughout the panel. Canopy work, though unmistakably Decorated, is more elaborate than usual. The character of lettering at base indicates middle Decorated period.

Fig. 3. From Mr Grosvenor Thomas's collection. Circa 1350. Female saint with ruby halo under a canopy (probably St Agatha). Body much broken and repaired with scraps of later glass. Hands apparently holding pincers, which possibly were applied to the breasts of the original figure. The ogival form of gable in this and fig. 2 hint at some Continental influence. The diaper of the blue background is typical of the period. The scrap of inscription below the figure is transitional, Decorated to Perpendicular.







PLATE IV



Fig. 3



Fig. 2



Fig. 1





## THE FOURTEENTH CENTURY

and thus holding them up to contempt hands down their names to posterity far more permanently than the glass could do. We learn from him that the third window on the west [*sic*] was given by one Walter Morden "Stokefyschmonger," and Mayor of London. The second window on the south bore the names and arms of John de Charlton, Kt., and his wife. The fourth was the gift of Walter de Gorst, fellmonger of London; the fifth, of the Earl of Lancaster, and so on.

Having traced the main features of fourteenth-century development we can now draw attention more minutely to the points by which the collector may most readily identify glass of this period. He should note:

- (a) The first appearance of yellow stain and abrasion.
- (b) The first use of white glass for flesh, generally with hair stained yellow.
- (c) The first appearance of heraldry.
- (d) The first employment of stippled shadows.
- (e) The excellent quality of the glass itself—the raw material—especially during the first half of the century, and its often being entirely free from either corrosion or patina. Where corrosion does appear it generally takes the form of scattered pits, smaller than, but as clearly defined in form as those of the thirteenth century (Plate XXIX, fig. 2). The brownish yellow so common in Decorated canopies forms a marked exception, as it seems extremely subject to corrosion. Often the whole surface of this glass will be found almost destroyed by pitting whilst the surrounding material is untouched. Generally speaking the coloured glass of this period corrodes more readily than the white.
- (f) The gradual disappearance of striæ and minor irregularities from the surface of the glass. From this period the collector desiring to distinguish "muff" from crown glass must note whether the bubbles (technically, "seeds") in the body of the glass follow curves or no



## A HISTORY OF ENGLISH GLASS-PAINTING

to tell the form in which the sheet was manufactured, since the smooth surfaces lend no evidences to aid him.

- (g) The superior artistic quality of the painting: better drawing and more delicate brush-work.
- (h) The substitution of a certain deliberate and vigorous angularity—the feature of all true Gothic work—for the rounded curves hitherto attempted in such minor details as grisaille patterns and borders, and
- (i) The exact converse of the last rule wherever subject work is concerned, notably in drapery. The folds of garments, from being angular and narrow, become rounded and flowing. A certain pre-Düreresque feeling is evident, greatly aided by the softer gradations permitted by the stippled shadows now coming into general use (Plate IIIA, fig. 1).
- (j) The first appearance of naturalistic foliage in grisaille and borders. Leaves, flowers and fruit recognizable as belonging to any particular plant or tree do not occur earlier than the fourteenth century.
- (k) The elaboration and rise to prominence of the canopy. The typical Decorated canopy is drawn flat with no attempt at perspective, and has an arch under a high straight-sided gable front over the main niche, with smaller similar gables and arches at the sides. The spires and pinnacles are also high, and the shafting turrets are commonly treated in white, with brickwork or windows (see Plate IV, figs. 1 and 3 and examples on Plate VIII) and broken with coloured squares apparently intended to represent weatherings of buttresses, string courses, and the like minor architectural features.
- (l) The scale of colour. A strong yellow predominates, especially in the canopies, and this to such an extent that a visit to such a typically Decorated interior as that of York Minster leaves the impression of brassy yellow beyond all other colours. The range of colours is more limited than in the preceding century, second-



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aries, excepting green, being almost absent, and the characteristic blue less raw and vivid than before (see Plate IIIA, fig. 1). With these exceptions the quality of the colouring has a general resemblance to that of the thirteenth century, but the heaviness of the earlier colour schemes is much ameliorated by the better quality and greater quantity of the white and yellow glass employed.

Regarding stained-glass purely from the point of view of a Gothic decorator, fourteenth-century work may justly be regarded as the highest and best the art has ever produced. The excellence of its material and the boldness and vigorous conventions of its design alike render the period distinct from those preceding and following it. The windows of the twelfth and thirteenth centuries, with their archaic drawing and strong rich colour, have always more than a suggestion of the barbaric in them—a colossal gorgeous amateurishness, as it were. They recall a child's delight in its kaleidoscope, the yearning of the savage for gaudy fabrics; and even the trained glass-painter, loving and admiring them as he must, cannot but admit in his heart that he is grateful to the grime and corrosion of ages for subduing what must have been fiercely garish displays of colour. But during the fourteenth century colourings no less rich became more subdued, and glazing and painting are of equal merit. Each supports the other to their mutual advantage.

This beneficial interdependence begins to disappear with the close of the century. Marvellously skilful though the latter glaziers were, one feels their lead-lines all too solid for the lighter colours and more delicate paintings of the fifteenth and sixteenth centuries. Briefly, in the twelfth and thirteenth centuries one is grateful for the lead-lines, looking to them to aid in the deciphering of the design; in the fourteenth century they escape notice altogether, and later are almost invariably intrusive, until they become a positive disfigurement.

The prevailing impression remaining in one's mind after care-



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ful examination of a series of Decorated windows is that they are full of foliage. To a great extent this is actually true, for grisaille, climbing borders, and flowing diaper work alike are all based more or less upon naturalistic forms. Thus at Exeter the choir windows were originally glazed in pairs, each displaying foliage readily identified as belonging to the oak, the hawthorn, and other familiar native trees. No attempt is made to imitate the angularity proper to their growth; the Decorated painter loved natural forms, but he loved curves better. The stems flow in the rounded curves peculiar to grisaille, but the leaves issuing from them are unmistakable.

The period marks a shy attempt at drawing from the life, at least so far as naturalistic floral models may be called alive. By the end of the fourteenth century it is on record that the actual living human model was used. But this occurred at Beverley, after the transition to the Perpendicular, and an account of it will be found in the chapter dealing with that style. No such a daring departure is recorded earlier than the middle of the fourteenth century, but the character of Decorated foliage bears unmistakable evidences of having been drawn from life. The painter still spaced his design upon the curves of early English foliage, but its conventional rotund trifoliations are gone. It must be confessed that although the substitution of natural forms gives interest to fourteenth-century windows it does not enhance their decorative value. The later grisailles from the Chapter House at York, easily recognized as oak and hawthorn, do not compare with the round, conventional leaves in the Five Sisters window, and the ivy, oak, ash, and hawthorn windows at Exeter are thin and restless in effect after the totally unassignable but firmly treated Early English foliage at Salisbury.

But the impression of foliage given by Decorated glass goes deeper than this. The Decorated craftsmen divided their allegiance: on the one hand they swore by geometrical curves, and on the other by naturalistic forms; and they managed to compromise between the two by grafting their naturalism upon their geometry. Geometry underlies all their designs; foliage adorns them. They

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cannot rid themselves of curves and leaves. Look at the very typical figure of St Peter from Stamford (Plate IV, fig. 2), and see how, not contented with floral borders and floral diapers behind figure and canopy, the glazier has imported leafy forms into such architectural features as the crockets and finial, and introduced flowing ogival curves, then unknown in architecture, into the arch and gable of his canopy. The very mouldings at the base of his canopy shafts are foliated, and his lines of drapery schemed in rounded curves wherever possible. 1212818

Borders to lights and tracery openings are almost universal, the climbing floral designs being most in favour. Occasionally, however, the glass-painter revolted against their meaningless repeats, and painted animals or birds, sometimes naturalistic, sometimes grotesque, climbing or perched at intervals on the main stem of the design. Sometimes he abandoned it altogether, substituting for it a series of heraldic features, beasts, badges (Plate VI, fig. 1), or like emblems, generally in white and yellow-stain upon coloured backgrounds. Such designs grow more various as the century grows older, and being often rectangular in form paved the way for the square and oblong borders characteristic of the Perpendicular period.

The rapid evolution of the Decorated style and its yielding to the Perpendicular between 1350 and 1370 render it difficult to choose any features which may be regarded as typical of the whole century. It may, however, be safely assumed that the use of pinkish flesh colour for hands and faces was almost universal for the forty years subsequent to 1300. Such faces are better painted than hitherto, though any attempt at shading is rare, the features being more or less emphasized by the thickness of the outlines. The treatment of hair and beard, which not uncommonly were leaded up on separate pieces of glass from the face to which they belonged, is quite characteristic. The heavy outlines were arranged in a series of concentric curves, thick and thin lines alternating to some extent (Plate IV, figs. 1 and 3). The resultant appearance is easily distinguished both from the clumsy blocked-in attempts of the century before, and from the hair, delicately outlined,



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shaded, and stained on white glass, of Perpendicular figures subsequent to the year 1360! An example of a Decorated head on white glass is given on Plate V, fig. 2.

Subject windows of this period are uncommon in England, and where they occur—despite the fact that their subjects occupy oblong panels under arched canopies—they irresistibly recall the cramped compositions of the medallion windows of the preceding century. The figures they contain are few in number, stiffly drawn and heavy in colouring, and owing to the absence of inscriptions and of the distinguishing emblems so common in Perpendicular work it sometimes happens that they can only be identified with difficulty. The painter was not yet at his ease with anything more ambitious than a single figure.

But one combination of single figures and floral design went straight to his heart. This was the Jesse window. It had enjoyed considerable popularity in the thirteenth century, and several examples of this date remain in France, though only a few fragments are left to us in England. The design, a flowing vine with separate single figures of prophets and patriarchs posed at intervals in its branches, made an appeal to the fourteenth-century glazier's tastes. Foliage was his delight, and being both shy of subject compositions and tired of medallions, the Jesse tree offered a flowery path between the two. The spacing was the familiar spacing of the medallion window, the single figures offered all the scope he desired, and the wreathing, winding, interspaced foliage supporting them was the very thing he could paint better than anything else. The tree of Jesse, popular as a subject from the thirteenth to the sixteenth century, bloomed its finest and best in the Decorated period.

## PLATE V

### HEADS OF VARIOUS PERIODS

Fig. 1. In a private collection. Circa 1290. Head in bold, strong outlines on brownish glass. No shadow or stain.

Fig. 2. In a private collection. Circa 1330. Upper half of a female figure in outline only on brownish-white glass. No shadow or stain. Glass badly corroded and patina flaking off in patches at back. Note parallel strands of hair and simple rendering of drapery folds.

Fig. 3. In a private collection. Circa 1420. Heads of the Virgin and Child in white and stain. Faint stippled shadows helped out by delicately traced outlines.

Fig. 4. In a private collection. French, circa 1510. Head of the Mater Dolorosa from a Crucifixion. Note first occurrence of enamel on cheeks, lips, and about the eyes. Shadows of drapery now laid level and stippled, and lights wiped out with a stiff brush when dry.

Fig. 5. In a private collection. Flemish, circa 1600. Enamel now used freely both for flesh and drapery. Flesh tints washed on as in water-colour painting. Enamel of drapery tending to become opaque.

Fig. 6. In a private collection. Head by Peckitt, of York. Circa 1760. Flesh tints laid in enamel and lights wiped out when dry. Note the tendency of originally black outlines to fade to a pale translucent grey.







PLATE V

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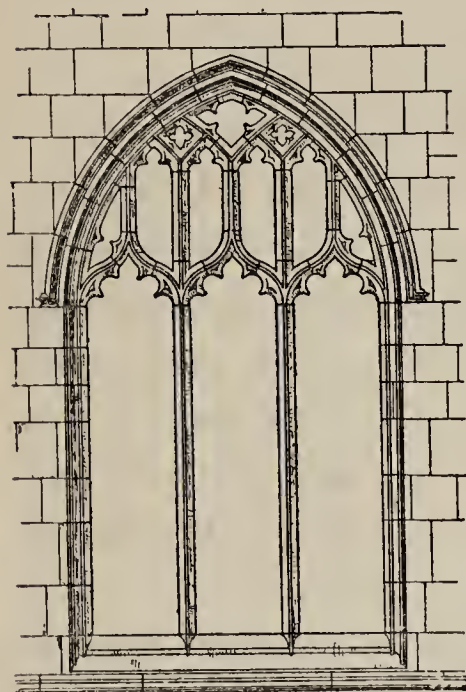




## CHAPTER III.

### THE FIFTEENTH CENTURY.

New social conditions and their effects on windows—Fifteenth-century material—Early use of the living model—Commencement of the struggle with lead-lines—Perpendicular design—The quarry window—Secular glass—Grotesques—Detailed characteristics of Perpendicular glass—Portraits—Fairford.



TYPICAL FIFTEENTH CENTURY WINDOW STONEWORK.

THE opening of the fifteenth century in England finds the Perpendicular style in full swing, and the glass-painter, though still owing allegiance to the architect, reaching out for the first time after pictorial effects. The last trace of Byzantine influence had now vanished from his designs; gone were the gorgeous foliated intricacies of the Early English style; and even their pale descendant, grisaille, so popular for the last hundred years, had at last fallen into disuse. For

the first time we find the painter instinct opposed to the glazier's training. The struggle between them, and the victory of artist over craftsman, is the story of the decadence of the art.

Before enumerating the characteristics of fifteenth-century stained-glass it is necessary to glance for a moment at the conditions prevailing in the other art-handicrafts, and more particularly in the art of mural decoration. Before the fifteenth-century sculpture and stained-glass had occupied a place all their own, standing out beyond all other features of interior decoration. Furniture and fittings existed, of course; tapestries and metal-work, all lending beauty to the apartments that contained them, but only lending it. They formed no essential part of the archi-



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tectural scheme, and were removable or capable of adjustment, whereas glass, sculpture and the finely finished mason's work were all intrinsic parts of the building itself. The walls, without which no building could exist, were of chosen stone, dressed with skill to a rarely finished face; the necessary doors were enriched with mouldings and with columns carved about their capitals and bases; the windows, scarcely less necessary, provided the rich colour the stonework lacked. In such an age the supremacy of stone-mason and glass-painter stood unchallenged.

It may have been the revival of brick buildings that gave encouragement to the plasterer's handicraft. An interior surface of raw brick is comfortless and offends the eye, and the hand-woven tapestries were costly. Or it may be that the enormous number of new buildings, and especially churches, which marks this century was responsible for a dearth of skilled masons, whereby many an architect was forced to content himself with rough interior walls of undressed stone. Be this as it may, the fifteenth century saw a great increase in the use of plaster for walls, and in that day of crude and costly artistic appliances the smooth white surfaces must have set the fingers of every painter who saw them itching for his brush.

And of painters there were plenty. Almost every cloister boasted its staff of illuminators, and the close likeness between the earlier mural paintings and the contemporary illuminated manuscripts shows how swift they were to seize upon the tempting new material. The prim stiff touch, as of men who hitherto had been accustomed to work upon a tiny scale, the numerous beautifully written inscriptions every subject displayed, tell the same story of skilled writers and miniature painters set free from sheepskins to work upon the larger spaces presented by the plastered walls.

The new material sorted out the men who worked upon it, as new materials always do. In the fullness of time the miniator went back to his manuscripts, as yet unthreatened by the printing-press, and the man whose leanings were towards work on a larger scale became the fresco-painter. Meanwhile, his technique steadily improved; his draughtsmanship, no longer cramped by considera-

## PLATE VI DECORATED HERALDRY

Fig. 1. From Beer Ferrers Church, Devon. Circa 1330. Fragment of margin from east window showing coats of arms of Ferrers and Carminow used as a border.

Fig. 2. From Beer Ferrers Church, Devon. Circa 1330. Figure of William de Ferrers in east window. Note arrangement of border in blocks, quarry shaped panes of grisaille and simple diagonal pattern of broad strap-work between them—all characteristics of the fifteenth century rather than of this earlier period. The conventional foliated features behind the shield are distinctly Decorated. Lombardic lettering on inscription. Ferrers arms on surcoat and banner-like feature above shoulder. The right foot of figure has been repaired with a piece of foliage, and one heraldic border, charged with a lion passant gardant, remains in the upper left-hand corner of light.

Fig. 3. From St Decuman's Church, Watchet. Circa 1360—transition from Decorated to Perpendicular. The border, in blocks of stained white alternating with colour, and the quarry background, with the scroll imposed upon it, are all Perpendicular; but shape of shield, drawing of lions and running pattern of broom-plant on the quarries all belong to the earlier period. The meaningless bunched pattern painted on borders is typically Transitional. Compare black letter of inscriptions with that on Plate iv, fig. 3, and also with Lombardic lettering on Ferrers panel, adjoining.





DECORATED HERALDRY

[illegible]



PLATE VI

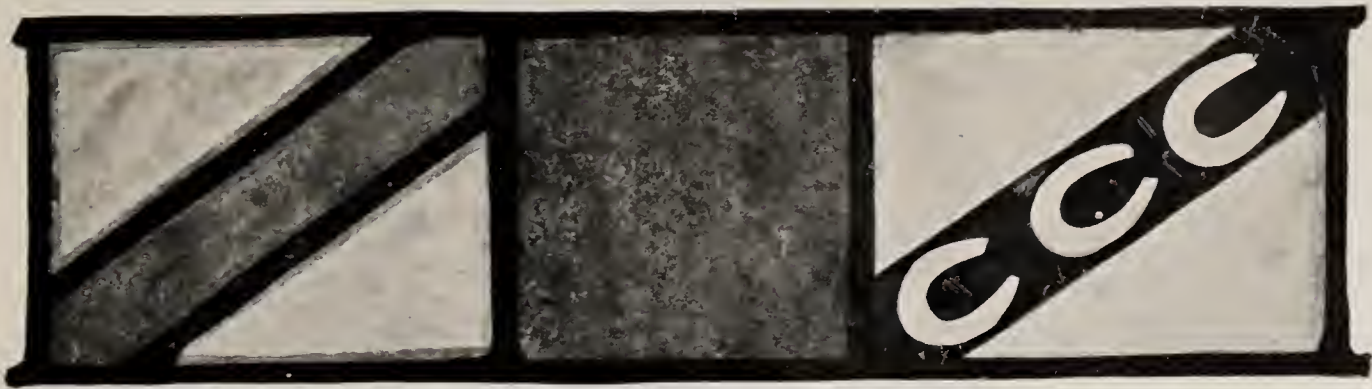


Fig. 1



Fig. 2



Fig. 3





## THE FIFTEENTH CENTURY

tions of space, became better every day: and side by side with him, working almost on the same scale, the glass-painter daily learnt from him new freedoms, gained more and more power to fight against the conventions inherent in his brittle material.

First, he must have glass as smooth as could be made. No other need compared with that in urgency. The plaster walls were smooth and white, so his material must be smooth and white, too. The glass maker obeyed, and glass was made smoother, and of a whiteness never before seen. And here, by the way, at the very outset the seeds of future trouble were sown. To produce a ductile material, easy to blow to a thin and even texture, more alkalis were added to the glass with a view to rendering it easily fusible. This in itself was a false step, and to make matters worse, the alkaline substances—generally beech-wood ashes—were usually impure. These fusible elements were soluble as well, and, later on, rain resting on the surface of the glass dissolved them out and crept through the microscopic fissures thus formed into the interior of the panes, as will be told when we deal with the subject of corrosion. The defect was not new; it had been present from the very beginnings of English glass, owing to the defects of the native raw material: but it was only in the fifteenth century that it became so serious as to be the sole cause of the destruction of countless windows wholesale.

But the new smooth glass pleased the fifteenth-century painter, and with such fine-seeming material ready to his hand he was able to set off in full cry after pictorial methods, careless whether his labours were to be permanent or no. His work was for the most part so quaint, his drawing still so primitive and archaic, that it seems difficult to admit that he was deliberately aiming at the production of pictures in glass. But comparison with contemporary illuminated manuscripts and mural paintings—the only pictures he knew—reveals such exact points of resemblance that it is impossible to doubt whence he derived his inspiration. Where the illuminator uses gold, he uses yellow-stain. The diapered backgrounds, the favourite tiled pavements, the arrangement of subject compositions, the drawing of individual figures, above all the constant



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occurrence of the little explanatory scrolls with texts or names which are so characteristic of the period (Plate IIIA, fig. 2), all are common to manuscript, wall and window alike. Probably he worked from life, too, from the model. Other handicraftsmen did, and we may be sure so able a man as the fifteenth-century glass-painter was no whit behind his fellows. That the model actually was used is set on record by the chronicles of Meaux Abbey, near Beverley, which were written at the end of the fourteenth century. One abbot, Hugh by name, desirous of pilgrims to his shrine, deliberately set himself out to attract them by ordering a new crucifix for the choir of his chapel that should transcend in beauty any crucifix yet known. The artist reserved the finest and most important parts of his work for Fridays, when he laboured upon them fasting on bread and water. But the point that concerns us is that "he had all the time a naked man under his eyes, and laboured to give his crucifix the beauty of the model." It is gratifying to know that "by the means of this crucifix, the Almighty worked open miracles continually." At all events, the record proves the use of models anterior to the fifteenth century, and sets at rest any doubt about the craftsman's deliberate aim at pictorial effects.

With the glass-painter's work growing lighter and more delicate every year, glazier and glass maker, try all they would, could not keep pace with it. The better the painter, the more he felt the limitations of his material. The lead-lines, for instance, had adorned his forefathers' work. Boldly recognizing their necessity, the thirteenth-century painter had turned their heavy outlines to account. Rebelling against them, he of the fifteenth century soon found them shackles rather than adornments.

In response to his desire for lightness and for a smooth material with no imperfections to mar his delicate painting, the glass-makers from the beginning of the fifteenth century were producing glass to all appearance finer than had ever yet been seen. After three centuries of striving to that end, their white glass actually was white—or very nearly so. To this day our native raw materials will scarcely produce a pure white glass—looked at edgeways,



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modern English sheet shows a marked greenish tinge—but the fifteenth-century glass was white enough for all practical purposes, only a tinge of grey, or pale sea green, becoming visible in a moderated light. Moreover, it was thin, being generally less than one-eighth of an inch in thickness, and the glazier, a consummate craftsman, master of his material and of the simple tools of his calling, did wonders with it, pandering to the painters' new dislike of lead-lines by nibbling it into shapes of almost impossible intricacy. In colours, too, he made a dozen new departures. Where his forefathers had been practically limited to the three primary colours, aided by one secondary, green, the range of his palette was almost unlimited. Purples and pinks; greys, slaty and blue; full browns, from sepia to yellow; sad neutrals and greens in great variety were all at his disposal. One blue—rather ultramarine in character—and a brownish yellow had been the dominant notes throughout the Decorated period, but henceforth no such simple colouring was deemed sufficient. Secondary and tertiary colours prevail (see Plate XIII). Any window in England that shows purples, pinks or browns in more or less profusion is later than the year of grace 1400, and it should be noted that whereas the glazier hitherto would seem to have chosen each piece of glass for its individual strength of colour, without regard to the possible juxtaposition of jarring elements in the colour scheme of the whole window, henceforth he had the whole of that colour scheme primarily in view. The new subdued colouring is harmonious. The glass used is softer in tone—duller, if you will—but by judicious combination and by the increased use of white glass as a contrast, the glazier achieves a richness hitherto unknown. Aided by yellow-stain—now in daily use—these earlier colourings are exquisite, subdued harmonies, never garish and never dull. For the rest, the glazier was now well accustomed to abrasion and practised it frequently, not only in ruby glass but on flashed sheets of blue and green as well. Save for enamels, a discovery reserved for a century and a half later, he had at his disposal all the means which are employed at the present day.

It was a period of growing prosperity for England, and glass-



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painters, with other purveyors of luxury, thrived apace. The laws and forms of Government were undergoing steady improvement. It is of this era that Philip de Comines writes "England is the country where the commonwealth is best governed, the people least oppressed." No more eloquent testimony to the prosperity of the land is needed than to recall that the two meals a day instituted by the Normans now became four. The middle classes, hitherto housed like cattle, had decent homes brought within their reach by the revival of building in brick. A house once acquired, its owner's first care was to adorn it. Stained-glass in consequence came into domestic use and the field of design was extended to meet a secular as well as an ecclesiastical demand (Plate XIV<sub>A</sub>, figs. 1 and 4).

Buildings of both types displayed one like architectural feature. Windows were smaller than heretofore, or when actually larger were subdivided into smaller lights or compartments. For windows in dwelling houses practical considerations rendered this inevitable, and in churches or other large buildings the exigencies of Perpendicular taste worked to the same end. The arched window-heads, becoming flatter in pitch, required central support, and the mullions, instead of dividing at the springing line into geometrical patterns, were carried straight up through the tracery to render it. The effect was eminently Perpendicular—too perpendicular by far. The prolonged mullions cut every window into so many upright stripes of equal width, and the immediate problem before the architect was to avert this striped appearance as much as possible. Heavy transoms were built across the lower lights, cutting them in half, into three, quartering and subdividing them *ad infinitum*. The tracery openings also were subdivided as much as possible, generally by intermediate mullions, upright it is true, but by their shortness and varied widths confusing and leading the eye away from the essential, constructional mullions alternated with them.

The glass-painter played up well to his architect's lead. Even where there are no transoms his subject panels run in level tiers across the windows, and often where transoms existed he supple-

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mented them by his own arrangement of the glass—always tending towards a horizontal arrangement. The great east window of York Minster has nine lights, divided by two transoms into no less than twenty-seven compartments; but even this subdivision failed to please Master John Thornton, the Chapter glazier. Again dividing the lights by heavy iron bars, he got three level tiers of subjects into the upper row and five tiers into each of the two lower, making thirteen tiers of nine subjects each—a hundred and seventeen subject panels in one window! Always the effort was to produce broad level bands of colour, intended to counteract the mullions' narrow upright parallels. The glazier avoided upright lines wherever possible; relinquished the climbing floral borders for square blocks of colour with, between them, ornamental oblongs in white and yellow-stain; alternated his colour schemes to the same end. In the familiar three-light Perpendicular window no arrangement is more common than this alternation of one strong note of colour. If the two side lights have ruby backgrounds, and the centre blue, you shall almost inevitably find that in the tracery openings above the centre light ruby predominates, and blue above the sides. Any juggling with colour or draughtsmanship that would diminish the tendency towards perpendicular lines was seized on by the glass-painter at once. A curious contradiction of this rule, however, is illustrated on Plate IIIA, fig. 2. The background to this figure is glazed in alternate vertical stripes of red and blue. Probably the reason for this was that the panel, which is unduly wide for its height, was fixed quite forty feet high, and the glazier must have felt it necessary to combat the squat appearance due to foreshortening.

The output of the fifteenth century must have been enormous, for with the new prosperous times the land woke to an unexampled enthusiasm for building. Quite half of our country churches belong to this date, with many private residences and collegiate buildings without number. Glazed windows, hitherto a luxury, became almost a matter of course, and very many of them were of stained-glass. So great was their number that a prominent feature of fifteenth-century design remains to this day the most familiar attribute



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of stained-glass windows. The hitherto popular grisaille falling into disfavour was replaced by the "quarry" window, leaded up in lozenge-shaped panes—the "diamond lattices" invoked by the Victorian novelist desirous of imparting an old-world flavour to the country rectory wherein his heroine dwelt.

The quarry window—whether derived from the French *carrée* or the English "quarrel"—an arrow-head—is the direct lineal descendant of the grisaille it supplanted. With the decay of the Decorated style of architecture rotund geometrical curves went out of fashion, and the quatrefoils of the grisaille window became mere lozenges, their sides parallel to the diagonal lines that had divided them. At first some attempt was made at retaining the interlacing strapwork that by contrast had relieved the curves of the medallions, but this soon became a mere painted edge to the diamond-shaped panes and finally vanished altogether. Figs. 1 and 4 of Plate IX are essentially of the same character, for all that one of them is a fragment of stained grisaille planned on curved lines, and the other is a true lozenge. Both have strapwork around a running floral pattern. In fig. 3 the pattern has become isolated, and no longer runs on into the adjoining panes. Fig. 6 still retains the strapwork, but is none the less a typical Perpendicular quarry, and the other contemporary examples show no strapwork at all. With it went the last attempt to link the panes by a running pattern connecting them together. The conventional climbing foliage, leading the eye upward, repeat on repeat, had already given way to individual sprays, each contained in a separate pane. And with the last painted edge to a quarry vanished the last lingering trace, now almost unrecognizable, of the Byzantine influence on stained glass.

The quarry window became immensely popular. It was cheap and admitted plenty of light, whilst giving sufficient opportunity for the insertion of colour. Its one fault was that the repetition of its patterns tended a little towards monotony, but this was obviated partly by the small size of the new window openings and partly by the natural and inborn individuality of the Gothic workman. From the first he was rarely content with less than two patterns

## PLATE VII BORDERS, ETC.

Fig. 1. Circa 1320. Decorated climbing border, stem curving round each repeat in circular flowing line. White glass, ruby background.

Fig. 2. Circa 1330. Guilloche border derived from above, but with more angular foliage.

Fig. 3. Circa 1340. Decorated climbing border of naturalistic oak-leaves, stem running straight through each repeat. Yellow glass.

Figs. 4 and 6. Circa 1350. Transition to Perpendicular. Similarly planned borders in white glass and yellow stain. Compare wavy line on stem of fig. 6 with traces of similar line on small corroded pane in front of fig. 2, Plate xxix.

Fig. 5. Circa 1330. Border from same window as fig. 2, and presenting a straight-lined rendering of same design, intermediate between figs. 2 and 3. Yellow glass.

Fig. 7. Transitional border, Decorated to Perpendicular. Circa 1360. Plain oblong pane, but treatment in white and stain though self-contained still inclined towards flowing lines.

Fig. 8. From Mr Grosvenor Thomas's Collection. Tracery fragment, late fourteenth century, with plain beaded border and cross-hatched background. Note red rose annealed to greenish white glass of pane.

Fig. 9. Early Perpendicular border in white and stain. Possibly derived from fig. 7. This apparently meaningless pattern is fairly common in early Perpendicular windows.

Fig. 10. Typical Perpendicular border. Circa 1420. Conventional crown pattern.

Fig. 11. In private possession. Circa 1420. A typical Perpendicular border in white and stain evolved from the transitional form, fig. 7. Note weakness of foliage as compared with figs. 2, 3, 4, and 5.

Fig. 12. From Mr Grosvenor Thomas's Collection. Circa 1460. Late Perpendicular. Climbing border. Note ultra-conventional form of vine leaf serrations.







# PLATE VII



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.

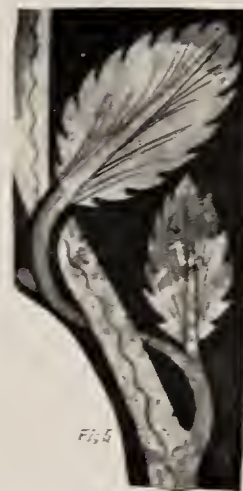


Fig. 6.



Fig. 7.



Fig. 8.



Fig. 9.



Fig. 10.

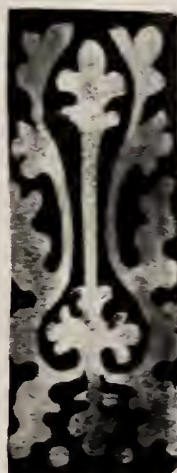


Fig. 11.



Fig. 12.





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alternated in the same window, and later broke even that alternation by the insertion of others. Repeated floral sprays soon wearied him: little birds, beasts, monograms and badges began to vary his windows and give them a personal interest (Plate XIV, figs. 1 to 4 and Plate IX, figs. 10, 12, etc.). Coats-of-arms were placed on the quarry windows as they had been on the earlier grisaille, and the initials, badges and rebuses of their owner were scattered over the quarry backgrounds. Sometimes circular medallions took the place of shields in breaking the monotony of the repeated diamond glazing. These were generally painted with little subjects, scriptural or otherwise, in white and stain, often enclosed within a circular border, which was quite distinct from the borders around the light itself, and was very often treated with great ingenuity and skill. Figures or compositions, emblematic of the months or the seasons of the year, were favourite subjects for such medallions.

As may be well understood it was in residential buildings that the quarry window became most popular for its own sake, offering as it did unprecedented opportunities for expression of the individuality of the owner; but it was used scarcely less in churches as well. Often the families who gave such windows commemorated the gift by the repetition of their own arms and heraldic achievements, but as in such cases secular designs often replaced the sacred emblems upon the quarries themselves, such a window, despite its position, may be classed as secular rather than ecclesiastical (Plate XIV<sub>A</sub>, fig. 3). Moreover, the larger size of church windows and their greater distance from the eye militated to a certain extent against the sole use of such tiny patterns as the quarry designs afforded. As backgrounds, however, they were more popular than even grisaille had been. Sometimes the subjects, with coloured grounds and surrounded with canopies, were laid upon them as they had been laid upon grisaille, but the quarries often pass behind the canopies, thus forming a continuous background on which both canopy and subject were laid. Oftener still the canopy is omitted and the quarries extend unbroken throughout the lights from point to base, the figures and subjects



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laid directly upon them (Plate XIV, fig. 6), the subjects being sometimes so reduced in size that it would seem that the glazier had not the heart to spare one inch of space which might be devoted to his beloved quarries. They were used anyhow and anywhere, in hundreds of thousands: just as the fourteenth century was the age of grisaille, so the hundred and fifty years preceding the middle of the sixteenth century can only be described as the period of the painted quarry.

After the quarry the most familiar shape of pane used in this century was the shield. It was an age of heraldry, and where heraldic bearings failed or were obviously inappropriate, the artist, loth to relinquish his shield-shaped pane, used it charged with painted medallions, ciphers or sacred emblems. In the familiar Perpendicular tracery openings it was used again and again, held by diminutive angels, or hung on conventional trees by a strap interlaced among their branches—a very favourite treatment, this. Often a series of such tracery openings along one side of a church would display the alliances of the family who held the manor. Such instances are innumerable, the Chudleigh series at Ashton-on-Teign providing a very typical example (Plate X, figs. 1 and 3). Or the tracery, filled with shields of the same form, exhibited sacred symbols pertaining to the subject that filled the light below. In many cases these little openings have been spared where the larger lights have totally disappeared, and by the innumerable repetitions of certain series give some clue to the relative popularity of subjects in the Middle Ages. Emblems of the Passion occur over and over again. Scarcely can one acquire any quantity of broken pieces dating from the fifteenth century without finding in every twenty some one fragment of the whipping post (sometimes with Peter's cock crowing on it) or of a scourge, a nail or two, or a portion of the crown of thorns. It would seem as though painter after painter followed on the same lines. Some quarry patterns are almost identical in design throughout the length and breadth of the land, examples from Suffolk exactly matching others from districts as far apart as Devonshire and York. So far as such merely ornamental accessories are concerned, the Per-

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pendicular period cannot be called an age of originality. The very popularity of repeated patterns such as quarries, shields and borders invites that remark.

But it was in his figures that the Perpendicular painter was farthest in advance of his predecessors. Herein he shows new independence coupled with a sure and skilled hand. He worked less for the architects' credit than his own, and the work of the period reflects his waking individuality. The names of great men on the Continent were in his ears, the van Eycks, Alberti, Albert Dürer: to their indirect influence must be ascribed much of the craftsman's new confidence. Not only was he a better draughtsman than his forbears, having some knowledge of composition and perspective; not only was he a better craftsman, aided by better craftsmen—his glazier and glass-maker;—not only did he now for the first time pay attention to the colour harmonies of his windows; but his artistic sense had improved, and his touch and individuality are inimitable to this day. The least figure he drew—and sometimes, it must be confessed, his drawing was still faulty—had a human quality and quaintness all its own. Earlier glass-painters had achieved a heavy colour strength that he lacked, later ones had a preciseness of draughtsmanship he never attained, yet his work has a fascination the others never had. It may be because he was the first glass-painter to work for the every-day dwellings of men, for domestic intimacy goes near to describing this quality in his work. The collector will find this for himself. As an antiquary he will venerate and respectfully admire the power and virility of the earlier fragments that come into his hands; as an artist he will delight in the skill and beauty of later work, and very likely he will laugh a little at the grotesqueness of his Perpendicular examples. Yet when that collection comes to be sorted and fixed for display in the windows of his house, ten to one the earlier portion will be found in his hall and on his staircase, and the later, perhaps, in his reception rooms. But the grotesque little Perpendicular figures will have crept into his favourite room—his workroom, probably—where he can see them daily, laugh at them often, and come to love them well. The best of our



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country's story has been seen through their quaint angular panes: England has become the England we know since they were in the kiln, and they are the first, the earliest, expression in glass of the English spirit of home.

Perhaps on account of our cloudy skies white glass has always been more in favour in England than on the Continent. The deeply coloured windows of the twelfth and thirteenth centuries may seem to contradict this assumption; but it must be remembered that they were executed under continental influence and more often than not by imported French painters. The fourteenth century had its grisaille; and the fifteenth, in addition to the quarry window, developed the canopy from a badly drawn and heavily painted mass of colour to a mere lace-work, almost entirely white, showing but a peep here and there of coloured background behind its pinnacles, with a few touches of yellow-stain on its tiny crockets and finials (Plate XXXIII, fig. 3). It grew enormously in size, too, often occupying two-thirds of the area of the lights. Sometimes it was placed on a white quarry background, no colour appearing anywhere in the window save in the draperies of the figures. The general effect of such a window is a mass of silvery white, broken only by the row of figures or subjects, and perhaps relieved by some little blocks of colour in the borders round the lights.

At no time was there such a great variety of subjects used, and the design and detail they contained were as varied as the subjects themselves. No one treatment can be regarded as absolutely typical of the period. Quarry patterns are very common, but in many buildings they are altogether absent; the white lace-like canopy, with its multitudinous pinnacles and architectural details, is found at no other period, but it is anything but universal in this one. The improvement in technique, and more especially in figure composition and the rendering of draperies is very marked; but with the enormous increase in output of glass it was inevitable that many painters of inferior merit found employment, and as a natural consequence much Perpendicular work does not invite stringent criticism. The secondary colouring to which

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reference has been made is perhaps the surest evidence as to date, but there are hundreds of exceptions even to this rule, many windows displaying combinations of ruby, blue, and white with yellow-stain, as simply devised as anything the preceding century can show. To every favoured treatment there are so many exceptions that it is exceedingly difficult to lay down hard and fast lines for the identification of work of the period.

As in the preceding century a very favourite arrangement was that of single figures under canopies. Such figures generally stand upon pavements divided into simple rectilinear patterns of squares or triangles in black, white and yellow (Plate XI). Sometimes the pavement forms the upper surface of a pedestal adorned with little architectural features such as arches, buttresses and crocketed pinnacles. The backgrounds are commonly red or blue alternated in each light, and the same colour is seen through the interstices of the canopy above, the pot-metals being covered with outlined diaper patterns, generally of flowing conventional foliations, but sometimes with mere repeats of circles or small rosettes (Plate IIIA, fig. 2). Sometimes, however, the backgrounds are of quarries, as has been already stated, the quarries themselves forming an indisputable evidence of date. When canopies are employed they, too, are unmistakable, by reason of their whiteness, their delicacy, and their crowded details. Generally, too, they display some elementary attempts at perspective, whereas the Decorated canopy, besides being rather highly coloured, is unmistakably flat. A transitional form has rounded turrets, shaded with smear shadows, with varied background colourings, and yellow-stain used in large quantities (See Plate VIII, date 1360, and XXXIII, fig. 2); but the typical Perpendicular canopy always gives an effect of angularity and simplicity of design (Plate XXXIII, fig. 3). Its square shaftings, set diagonally, its silvery whiteness and crowded details—crocket and finial, arch and floreated cusp—daintily outlined and lightly shaded—are unmistakable. This appearance of richness is produced mainly by the increased number of small canopy details rather than by any added intricacy in this form. The crockets, for instance, are no longer foliated but are outlined



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merely as little round knobs (Plate VIII, dates 1410-1430). Quaint realistic touches appear: flags sometimes wave from the turrets and grass and vegetation cluster round the architectural bases.

The figures beneath the canopies are less attenuated than hitherto, and their draperies are fuller, with more intricate folds. Wider in proportion to their height, they sometimes break out over the borders or canopy shafting which frames the lights (Plate XI), their draperies in many cases extending right across from mullion to mullion—another evidence of the constant desire to evade perpendicular lines wherever possible.

Similar single figures on a much smaller scale, generally painted wholly on white glass, are favourite subjects for the little Perpendicular tracery openings. Angels, holding scrolls inscribed with legends explanatory of the subject below, or with shields charged either with heraldic devices or emblems of the Passion, are of common occurrence. Sometimes they are surmounted by tiny canopies, more often surrounded by a narrow border painted with some simple pattern of beading, and more often still fill the whole opening without any border or surround whatever.

After the single-figure treatment windows with subject compositions are now fairly common. Generally speaking, the number of figures in each subject is very limited, owing to the small size of the panels, which the figures almost entirely fill, and each subject is confined to one light of the window. Sometimes they are cramped small so that two or three subjects may be crowded, one over another, into one light, separated only by squat flat-arched canopies. Towards the end of the century, however, more ambitious attempts were made. The subject not only breaks over its borders but extends through the mullion, and one large canopy over two or even three lights may connect all the figures they contain in one single subject composition. But this is exceedingly rare, and when it occurs it may be accepted as certain evidence, at least in England, that the work dates from towards the end of the century.

In such large subjects, as in the smaller ones already mentioned,

## PLATE VIII

### FRAGMENTS OF CANOPY-WORK

This panel is in a private collection.

Fig. 1. Circa 1300. From a Transitional canopy—Early English to Decorated. Glass a rather unusual shade of grey white. Outlines have flaked slightly, but no corrosion has appeared. Rough painting on excellent glass.

Fig. 2. Circa 1320. A portion of shafting from a Decorated canopy. Outlines intact, but glass shows a few corrosion holes. This yellow colour is typical, occurring profusely in nearly all Decorated canopy work. Improved painting, but slightly inferior glass.

Fig. 3. Circa 1320. Portion of a Decorated canopy showing a window. Glass of a pale horny white and thin for the period. In an excellent state of preservation. Strong painting on excellent glass.

Fig. 4. Circa 1480. Portion of late Perpendicular shafting (from Glastonbury). Design becoming over-elaborated, but very carefully executed. Note how shadow has been etched with a needle point where too heavily laid. Considerable corrosion, but outlines in very fair condition. Excellent workmanship, but glass now lacking in durability.

Fig. 5. Circa 1450. Intercuspation from bottom of a Perpendicular tracery opening with base or dais of small canopy. Cool greenish colour typical of Perpendicular white glass, but excessively deep owing to pane, a crown centre, being unusually thick. No corrosion and outline in good condition.

Fig. 6. Circa 1520. From an early Renaissance canopy. Ogival curves and deep shadows are characteristic of the period. Almost covered with light shallow corrosion. Excellent painting on bad glass.

Fig. 7. Circa 1350. Transitional canopy, Decorated to Perpendicular. Greenish white glass and yellow stain. Cross-hatched background and foliated yellow crockets typically Decorated. Angular shaft, rounded white crockets and yellow stain indicative of change of style. No corrosion, outlines somewhat faded. Fair work on good material.

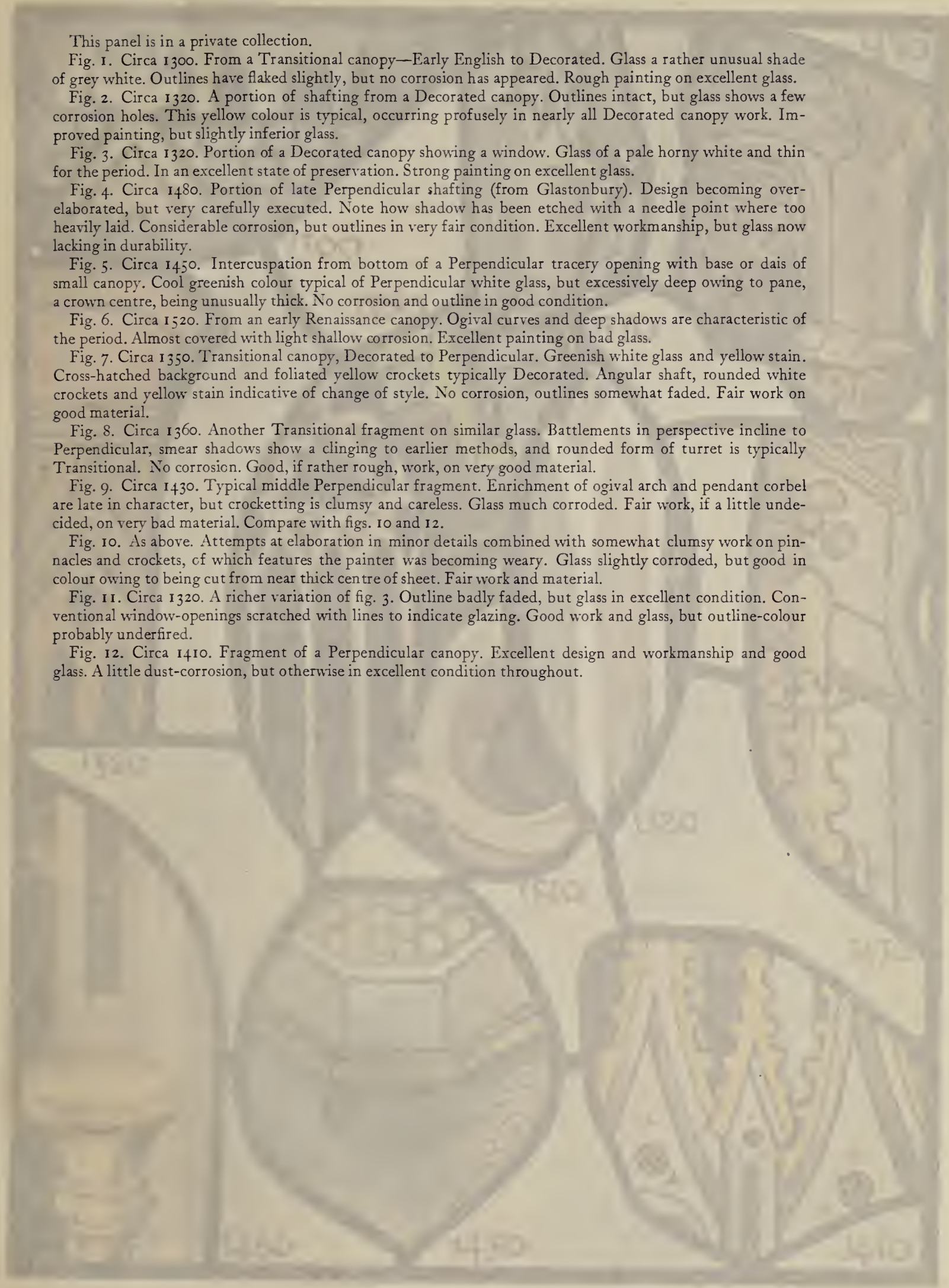
Fig. 8. Circa 1360. Another Transitional fragment on similar glass. Battlements in perspective incline to Perpendicular, smear shadows show a clinging to earlier methods, and rounded form of turret is typically Transitional. No corrosion. Good, if rather rough, work, on very good material.

Fig. 9. Circa 1430. Typical middle Perpendicular fragment. Enrichment of ogival arch and pendant corbel are late in character, but crocketing is clumsy and careless. Glass much corroded. Fair work, if a little undecided, on very bad material. Compare with figs. 10 and 12.

Fig. 10. As above. Attempts at elaboration in minor details combined with somewhat clumsy work on pinnacles and crockets, of which features the painter was becoming weary. Glass slightly corroded, but good in colour owing to being cut from near thick centre of sheet. Fair work and material.

Fig. 11. Circa 1320. A richer variation of fig. 3. Outline badly faded, but glass in excellent condition. Conventional window-openings scratched with lines to indicate glazing. Good work and glass, but outline-colour probably underfired.

Fig. 12. Circa 1410. Fragment of a Perpendicular canopy. Excellent design and workmanship and good glass. A little dust-corrosion, but otherwise in excellent condition throughout.





FRANKLIN D. ROOSEVELT



PLATE VIII

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## THE FIFTEENTH CENTURY

the number of figures is rarely large. There are exceptions, such as the Doom window at Fairford, but generally it would seem that a preference for single figures underlies the first attempts to extend the subject beyond its former limits.

Briefly, then, the Perpendicular window—apart from its characteristic stonework—may be recognized by:

- (a) The prevalence of white glass;
- (b) The occurrence of secondary or tertiary colours;
- (c) The struggle the design evinces *against* perpendicularity by the horizontal arrangement of subject panels, the alternation in each tier of the more dominant colours, and the common breaking of perpendicular lines in borders and elsewhere;
- (d) The occurrence of the quarry;
- (e) The characteristic silvery white canopies.
- (f) The relatively faint stippled shadows, which have everywhere ousted the smear shading of the Decorated period.

Owing to the enormous quantity of glass painted at this period probably one-half of such small fragments as the collector is likely to acquire will be Perpendicular work. And of that half he may reasonably expect to find two-thirds either quarries or fragments of canopy work. On close examination glass of this period may be recognized by:

- (a) Its relative thinness, compared with earlier glass (Plate XXIX, fig. 1).
- (b) Its colour quality: if white it should be nearly pure, with only a shade of greyish or pale grey-green, as in the pieces dated 1410, 1430, 1450 and 1480 on Plate VIII; if pot metal, secondary or tertiary colours should prevail, as stated above. More particularly a purplish tone begins to invade the blue, and the ruby often has a tendency towards a brown or pinkish shade (Plate XIII, figs. 16, 20 and 21).
- (c) The smoothness of the glass surfaces. The “reaminess” and imperfections of the fourteenth century have almost



## A HISTORY OF ENGLISH GLASS-PAINTING

entirely disappeared, except when the glass has been cut from near the centre or margins of the "crown" sheets, and only a few minute bubbles, following curved lines in the body of the glass, indicate that "crown" glass was in favour. The crown-centres or *yeux-de-bœuf*, commonly painted with a star or rose, were often used to fill the smaller tracery openings peculiar to Perpendicular stonework.

- (d) The size of the corrosion holes, which are smaller and less circular than in earlier glass, and not so frequent as in later examples. Compare the pointed ovoid Perpendicular pane on the right of fig. 2, Plate XXIX, with the surface of the large Decorated medallion. The holes also display a tendency to follow the curves of crown glass, and so to form lines parallel with the bubbles in the body of the glass itself (Plate XXX, fig. 5).

The custom of inserting portraits of donors in the windows they had presented, a few examples of which remain from the preceding period, became almost universal in the fifteenth century. The glass-painter, growing more accustomed to working in small, achieved excellent little figures or groups of figures for this purpose. They generally occupied part of the base of the window, and, whilst possessing all the individuality that could be desired, were prevented by their small size from interfering with the other figures forming its subject (Plate XI, fig. 2 and Plate XIV, fig. 6). Later they almost usurped the whole window-space, the religious subject being relegated to a minor position, but in the fifteenth century they occupy their proper proportion of space, providing interest without interfering with the story the window had to tell.

Perhaps the most indisputable evidence of the date of Perpendicular work is to be found in the treatment of foliage, wherever foliage occurs. As has been already stated, the period is marked by a strong revulsion against the rounded, flowing types of semi-naturalistic ornament so popular during the Decorated period. Everywhere now the tendency is towards rectilinear forms, the

## THE FIFTEENTH CENTURY

square for preference. At the very entrance to a Perpendicular building this is forced upon one's notice. Archways over doors are framed by square drip-labels, and when foliage fills the spandrels thus formed its paltry character provides yet another evidence of changed ideals. A Decorated carver would have rejoiced in such spaces, filling them with inter-wreathed foliage, masterly in their richness and beauty. For the same purpose the Perpendicular craftsman will use anything rather than foliage—shields, devices, scrolls, or figures—and if, hard pressed, foliage has to serve his turn, it is always straggling, angular and poor.

Nowhere is this change more apparent than in stained-glass. Grisaille has given way to quarry glazing, and square and oblong panes alternated with blocks of colour have ousted the climbing borders with their conventional repeats of leaves and flowers. Whereas the Decorated painter so loved his foliations that even the crockets and finials of his architecture approach floral forms, it would seem that his Perpendicular successors, going to the other extreme, tried to treat the little naturalistic foliage they were compelled to use with square and level, almost as if it were architectural in character.

The Jesse window, still in favour, displays this in a marked degree. The painter, weary to death of stems and leaves and grapes, centred all his skill on the figures they supported, executing the foliage in a most perfunctory manner. The leaves, like most Perpendicular leaves of whatever kind, are based on the square—painted on panes of glass cut almost square. Four black spots in the middle of each side of the pane indicated the four principal divisions of the vine leaf, each lobe being outlined in a series of semi-circles bearing no resemblance whatever to the curved serrations around the natural leaf it was intended to represent (Plate XIII, fig. 1, and Plate VII, fig. 12). As for the pseudo-foliage commonly found in the borders of the period, it is cramped to fit the square panes upon which it was painted, until, regarded as foliage, it is beneath contempt (Plate VII, fig. 11). The day for foliated ornament and flowing curves was gone, and the designer's imagination could only work within the rigid lines of the square.



## A HISTORY OF ENGLISH GLASS-PAINTING

No Perpendicular glass has received more exhaustive attention than the remarkable series of windows at Fairford, in Gloucestershire, where the church, containing twenty-eight windows—over a hundred-and-thirty lights—is entirely filled with stained-glass dating from the end of the fifteenth century. Their date seems fairly certain, but their origin has been the subject of such spirited controversy that any certainty under this head is impossible. The main point of interest they possess for the student of stained-glass is that in their design and treatment they flatly contradict nearly all the rules that can be laid down respecting windows of the period.

The fact that the whole series forms to some extent one comprehensive scheme of Biblical history and mediaeval tradition—commencing in The Garden and finishing with the Last Judgement—has lured many writers into claiming all the windows as the work of one hand—an obvious impossibility. Others, no whit less certain, have gone so far as to ascribe them to Albert Dürer. Some will have it they are English work throughout—the glass being made as well as painted in the vicinity—others, again, insist that they are foreign, and were prize of war at sea. There is no end to the silly stories that have clustered round this undoubtedly remarkable collection.

The party favouring the all-English theory being in the ascendant, one is naturally tempted to have first tilt at them. Most certainly not all the windows are English; the Crucifixion above the transom in the east window is unmistakably of Flemish or North French workmanship, and in fact none of the larger subject windows show any distinctive features which can be classified as English Perpendicular work. But it is equally certain that all the windows are not by any one artist—nay, more, they were probably not even executed under the control or direction of one artist. In quality as in design and treatment they vary in a most surprising manner, resembling rather a heterogeneous collection of work from different localities than a series executed for one building, and even though the subject windows were all Flemish work, some of the series of single figures in the north and south aisles may very

# PLATE IX

## THE DEVELOPMENT OF THE QUARRY PATTERN FROM GEOMETRICAL GRISAILLE

Fig. 1. From Urchfont, Wilts. Circa 1330. Quarry-shaped grisaille pane. Strapwork of colour has become a mere border smeared with matt. Floral pattern continued from adjoining pane.

Fig. 2. From Amesbury, Wilts. Circa 1340. Quarry-shaped grisaille pane. Strapwork does not overlap at apex, and so has to a certain extent lost its character, though the design is still a grisaille running pattern.

Fig. 3. From Exeter Cathedral. Circa 1330. A grisaille pane. In all respects as fig. 1, except that the pattern is self-contained and does not join that of adjoining panes.

Fig. 4. From Exeter Cathedral. Circa 1360. Transitional grisaille pane. Smeared matt has disappeared from border and central leaf is stained yellow.

Fig. 5. From a private collection. Circa 1400. A quatrefoil pattern quarry in white and stain, the pattern entirely filling quarry space. Well designed, but liable to become monotonous with repetition.

Fig. 6. From Takeley, Essex. Circa 1390. A true quarry, with yellow stained initial and crown in centre, but still retaining the outlined margin, descended from the coloured strapwork of grisaille.

Fig. 7. Circa 1420. A simple Perpendicular quarry pattern, generally used alternately with richer designs (see figs. 5, 11 and 12) to obviate crowded effect.

Fig. 8. From Amesbury, Wilts. Circa 1400. A quatrefoil pattern quarry in white and stain design occupying only the centre of the quarry space. For use as fig. 7.

Fig. 9. From Wantage, Berks. Circa 1410. Another Perpendicular quarry of conventional type, as fig. 7, for alternation with richer quarries.

Fig. 10. From Waterbeach, Cambs. Circa 1430. A personal quarry painted with initials and pastoral staff.

Fig. 11. From a private collection. Circa 1400. Conventionally designed floral quarry in white and stain, varied by scroll with name of saint to break monotony of repetitions.

Fig. 12. From Little Greenford, Middlesex. Circa 1450. A personal quarry painted with initials, hunting-horn, and two sprays of flowers.





# PLATE IX



Fig. 1



Fig. 2.

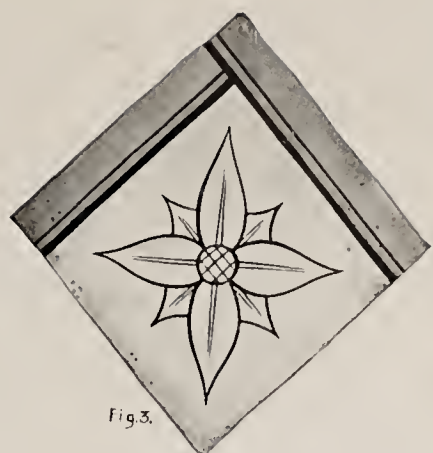


Fig. 3.



Fig. 4



Fig. 5.



Fig. 6



Fig. 7



Fig. 8

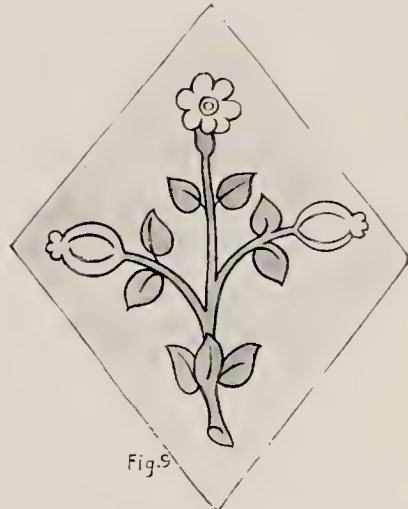


Fig. 9



Fig. 10



Fig. 11.



Fig. 12





## THE FIFTEENTH CENTURY

well be English. Mr Westlake draws attention to several points of similarity shared by these figures and Bishop Fox's windows at Winchester, and certainly seems to have adequate grounds for believing them to be by the same hand. None the less, the most typically English figures at Fairford display here and there startling touches of novelty in treatment which can only be accounted for by assuming that the English painters were strongly influenced by the work of the foreign artists. To give one instance only—the head-dresses of the prophets in the north aisle are like nothing else in England, though they strongly resemble contemporary work in Flanders (Cf. Plate XXVI, fig. 2). The figures themselves in some cases are startlingly un-English in pose, yet it is in these very lights that occur the Perpendicular canopies which form Mr Westlake's strongest argument in favour of their being English work.

These canopies are of unusual design, late Perpendicular, if anything, in style, but inclined to be decadent, and indeed the treatment of canopies throughout the series is eloquent of the weariness that befell all Gothic artists towards the end of the century. Those over the single figures are the nearest to the typical English work of the period, but the vaultings underneath them, the architectural backgrounds pierced with little windows below them again, their stumpy turrets and the large use of black outline-colour as a background to isolate the slender, heavily crocketed pinnacles, all mark a period of change. Other windows tell the same tale. In some, the canopies are lacking altogether; in others, one flattened arch goes right through the mullion, joining two lights in one subject panel—both marked Renaissance characteristics, and conveying a still more Renaissance effect by the large size of the subject panels themselves. The backgrounds are almost entirely pictorial, either landscapes or architecture taking the place of the diapered pot-metals of the period. In fact these windows depart so remarkably from Gothic traditions and present so many evidences which we are commonly accustomed to associate only with Renaissance work, that were it not that the underlying principles of their design are Gothic throughout, one would be tempted to describe them as Renaissance windows executed by a Gothic



## A HISTORY OF ENGLISH GLASS-PAINTING

glass-painter rather than Gothic work prophetic of an imminent change in style.

To the student of English stained-glass, desirous of familiarizing himself with the distinguishing characteristics of each period, the Fairford windows will be worse than useless. They will confuse him. As a matter of fact, they are confusing to the expert glass-painter. They are anomalous in every way. So far as description goes, the series of single figures under canopies might be typical late English Perpendicular work, but on examination they prove to be anything rather than typical either of the period at which they were painted or of their (probable) nationality. As for the subject windows, one has only to check over the more prominent traits of Perpendicular work to find them contradicted in every detail. The small subject panel is in favour everywhere else, but these subjects are remarkable for their size. The Perpendicular canopy is large, with delicate lace-like outlines painted on its panes of white glass. These canopies are small, squat, and rather clumsily outlined. Perpendicular crockets are small and round, these are large and richly floreated. Finally, the small English Perpendicular subjects tend to become crowded with figures, to the exclusion of the diapered pot-metal backgrounds, and, as has been already stated, their treatment shows a constant struggle against the overwhelming Perpendicular structure of the stonework. One window alone, that in the east end of the south aisle, shows how little the Fairford artists were bound by any such conditions. One of the two-light subjects in this window has only two figures, occupying at most one-fifth of the area of the subject-panel. The remainder is all background, an architectural interior, showing a receding vista of slender pillars, *all* Perpendicular lines.

The one point on which the glass agrees with other windows of its period is the poor quality of the material, which has been affected by corrosion and decay in a most remarkable degree. In fact these Fairford windows may be described as the low-water mark of glass manufacture in England, for in point of durability native glass begins to improve again from the beginning of the sixteenth century.

# PLATE X

## PERPENDICULAR HERALDIC TRACERY OPENINGS

Fig. 1. From Ashton Church, Devon. Circa 1440. Arms of Pomeroy impaling Chudleigh. Shield hung by the *guige* on a conventional bush or tree—a typical English Perpendicular arrangement, though workmanship in this case is possibly French. A large quantity of abrasion for the period. Note difficult shape of Pomeroy lion pane and abraded annulet on shoulder, also abrasion between fore paws and tails and bodies of Chudleigh lioncels. All these beasts are on ruby glass. Diaper on shield is traced in outline colour with the point of a brush.

Fig. 2. From St Cross, Winchester. Circa 1390. Arms of Cardinal Beaufort. Mottoes on scrolls repeated as a quarry pattern. Note cords of Cardinal's hat twisted round shield to serve purpose of mantling, also square form of lion-panes, and ovals on which fleurs-de-lys are painted.

Fig. 3. From Ashton Church, Devon. Circa 1440. Courtenay arms from same series as fig. 1. Note insertion of *torteaux* in holes drilled in shield, and narrow outlined border surrounding each, dividing them from diapered background. Also conventional grass around root of tree on which shield is hung.





PERPETICULAR HERALDIC TRACERY ORNAMENTAL  
PLATE I

The Perpeticular Heraldic Tracery Ornament is a decorative element of the Perpeticular style, which is a type of Gothic architecture. It is characterized by its verticality and the use of perpendicular lines. The ornament is a stylized representation of a Gothic window or a similar architectural feature. It is composed of a central vertical line, which is flanked by two smaller vertical lines. These lines are connected by a series of horizontal lines, which are themselves connected by a series of diagonal lines. The result is a complex, interlocking pattern that is both aesthetically pleasing and structurally sound. The ornament is often used as a decorative element in the design of Gothic buildings, particularly in the windows and doorways. It is also used in the design of Gothic furniture and other objects. The ornament is a testament to the skill and creativity of the Gothic architects and craftsmen.



PLATE X

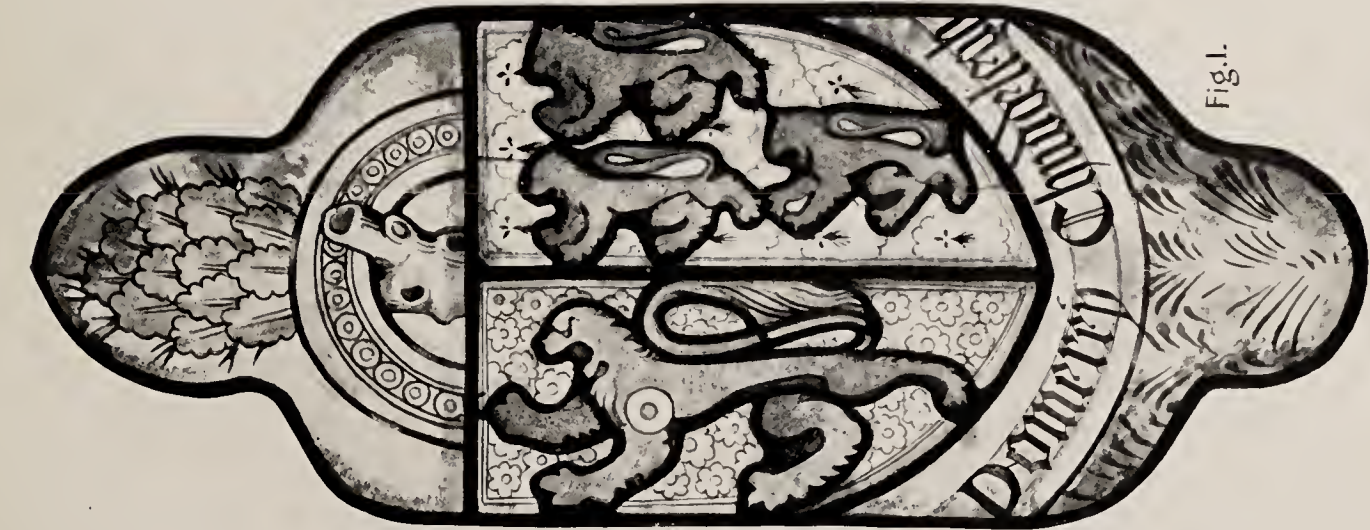


Fig. 1.

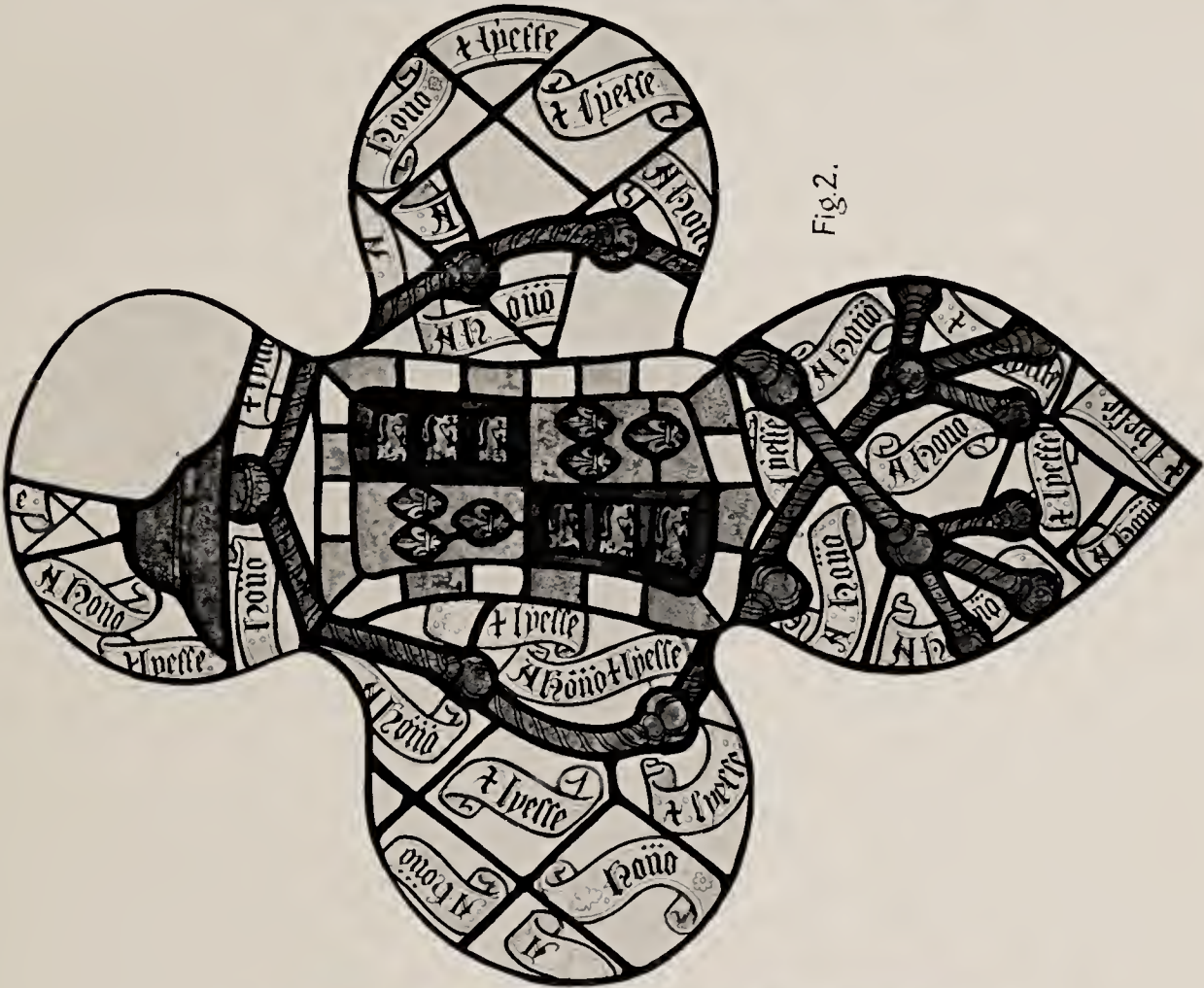


Fig. 2.

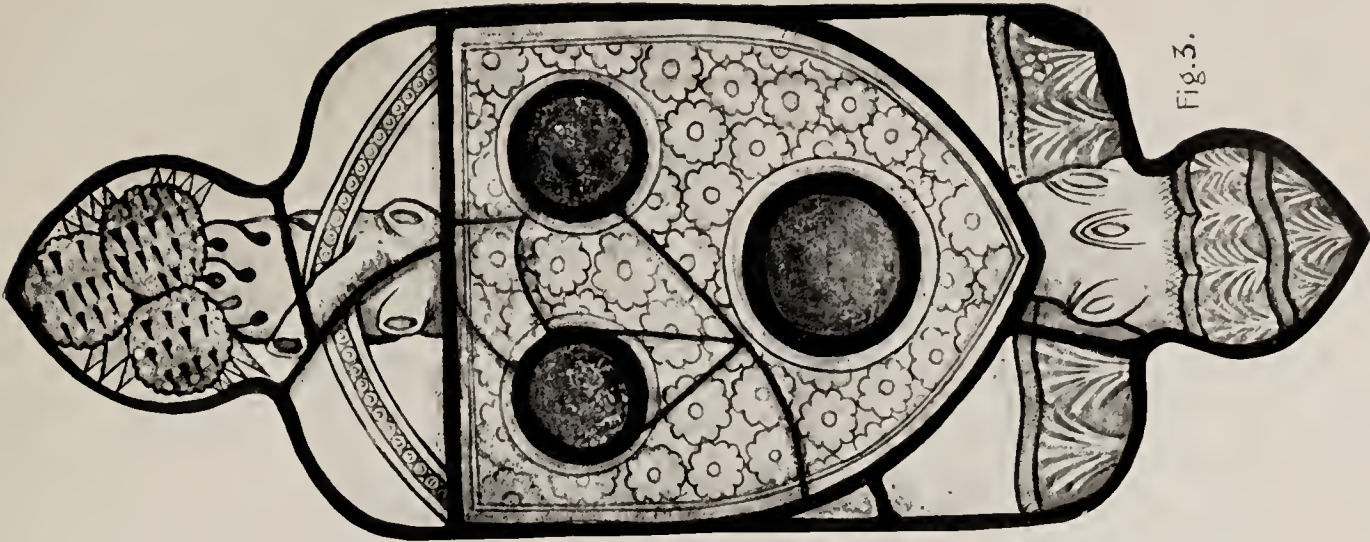


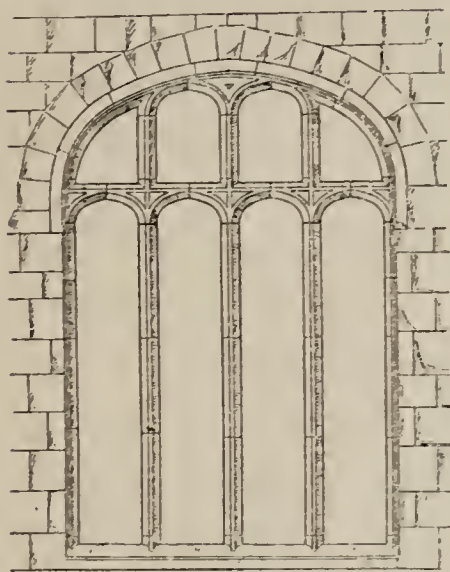
Fig. 3.





## CHAPTER IV. THE RENAISSANCE.

Death of the Gothic style and birth of the Renaissance—Its effect on the English glass-painter—Ostentation of donors—Pictorial effects—Neglect of old canons of the art and rise of individual painters—The canopy in transition—Gothic work native to England—The conflict between new ideals and old materials—Foreign glass in England—King's College, Cambridge—Renaissance material and technique—Enamels—Insertion—Annealing—The diamond and lead vice—Clear sheet glass and its effect on design—The typical domestic window—Tudor heraldry—Flemish medallions—"Cinque Cento" glass—Advice to collectors—Detailed characteristics of Renaissance glass.



SEVENTEENTH CENTURY WINDOW STONWORK OF THE GOTHIC REVIVAL.

BY the end of the fifteenth century Gothic architecture had run its course and was commencing to stagnate. For four centuries it had been vividly alive; its constant changes from style to style at once demonstrating its vitality and keeping awake the curiosity and interest of its craftsmen. By comparison with the marble perfections of the great Pagan works, it had always been marked by a human quality all its own. Liable to error, subject to spasmodic departures

in this direction or in that, peculiarly human in its tendency to rebel against hard and fast canons of elegance, in its old age its symptoms of senility were altogether human, too. Strength went, then nobility, then beauty. It lost all sense of proportion. It neglected the essentials of design to become engrossed with such childish, secondary matters as mere adornment. For strong and primitive forms, bravely conceived and wisely employed, it substituted capricious and arbitrary variations, with a constant tendency towards the finicking and weak. Neither good taste nor even the national tendency to conservatism could restrain it: trivial,



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affected, and silly, it seemed as though no infusion of new blood could rejuvenate it, and, unlamented, it tottered towards its grave.

The art of stained-glass, curiously enough, shows the traces of this decadence less than any other contemporary handicraft. It is difficult to explain why an adornment unknown before the Gothic era, born of Gothic architecture, and subject hitherto to every change of Gothic style, should still show vigour and beauty whilst the buildings to which it pertained daily grew more and more contemptible. The only conclusion one can draw is that it had acquired the vitality to stand alone.

Even so, there are undeniable traces of a weariness. The later Gothic glass-painters wanted pictures, and their skill was insufficient to produce them. They could not draw; their figures were motionless—coloured representations of statuary, not of life. They were hampered by tradition, dared not break rules: the only result of their seeking after pictorial effect was to omit the quaint touches that had rendered their earlier work so pleasing—such touches, for instance, as the delightfully impossible little explanatory scrolls, stuck in here and there, which the fourteenth-century illuminators had bequeathed to them. Their work was still good—much of it was excellent—but it began to lack force and *naïveté*, whilst it made but a stumbling approach towards pictorial accuracy. This one failing in late fifteenth-century stained-glass must be mentioned: it is a small matter compared with the more marked and universal tendency towards utter failure noticeable in all the other Gothic handicrafts.

Art cannot stand still; it must move forward or die: and it was the task of the sixteenth century to set up some substitute for the decaying style. The revival of learning pointed out the way, and a universal interest became manifest in the beauties lying hidden beneath the ruins of Greece and Rome. Starting from Italy, the new ideals spread amongst architects and handicraftsmen, and the new style—that of the Renaissance—locally modified here and there by national tastes, became universal throughout Western Europe. The painters began it, but in time sculptors, architects, and all their craftsmen came under the new influence. As early as

## THE RENAISSANCE

the thirteenth century the Italian artists had been bold enough to strive against the dogmas hampering them, and now all Europe, following their lead, sought inspiration on the one hand from natural forms, and on the other from the study of the antique. From nature her craftsmen gleaned the power of representing action and life, from the monuments of antiquity their innate grace, and with the masterly skill bequeathed them by their craftsman ancestry combined the two to perfection. The sixteenth-century painters attained to heights hitherto unknown, and again side by side with them, learning from them and emulating their successes, glass-painters did finer work than ever before or since. It is in the sixteenth century that glass-painting reaches its high-water mark both as to beauty and consummate craftsmanship.

To every period its beauties: and there are those who dispute the claims of Renaissance glass to be the best the handicraft has ever produced, comparing it to its disadvantage with the finest examples left of the earlier styles. It has not, they say, that glory of clustered jewels the twelfth and thirteenth centuries can boast; it lacks the enormous power and dignity, the consonance with surrounding architecture, the controlled masterly severity of Decorated glass, and the quaintness and playful humanity of the best Perpendicular work. Such comparisons are vain. As well find fault with chestnut blooms because they lack the greenness and symmetrical outlines of the foliage, or compare their delicate beauties with those of the sturdy tapering bole. As the flower is to the tree, so are the earlier Renaissance glass-paintings to the windows that preceded them. They are the flower of stained-glass, and it is in their delicate beauty that we must look for the seeds of later revival.

Inspired by new life, with the best of technical knowledge at their finger-ends, the painters of the period almost compassed perfection. And nowhere did strength, skill and inspiration go more triumphantly hand in hand than in England. It must have been a joyous time to live in, for the English glass-painter. Weary of old designs, becoming doubtful of his powers, hampered by the traditions of a style now dying in spasms of angularity and weak



## A HISTORY OF ENGLISH GLASS-PAINTING

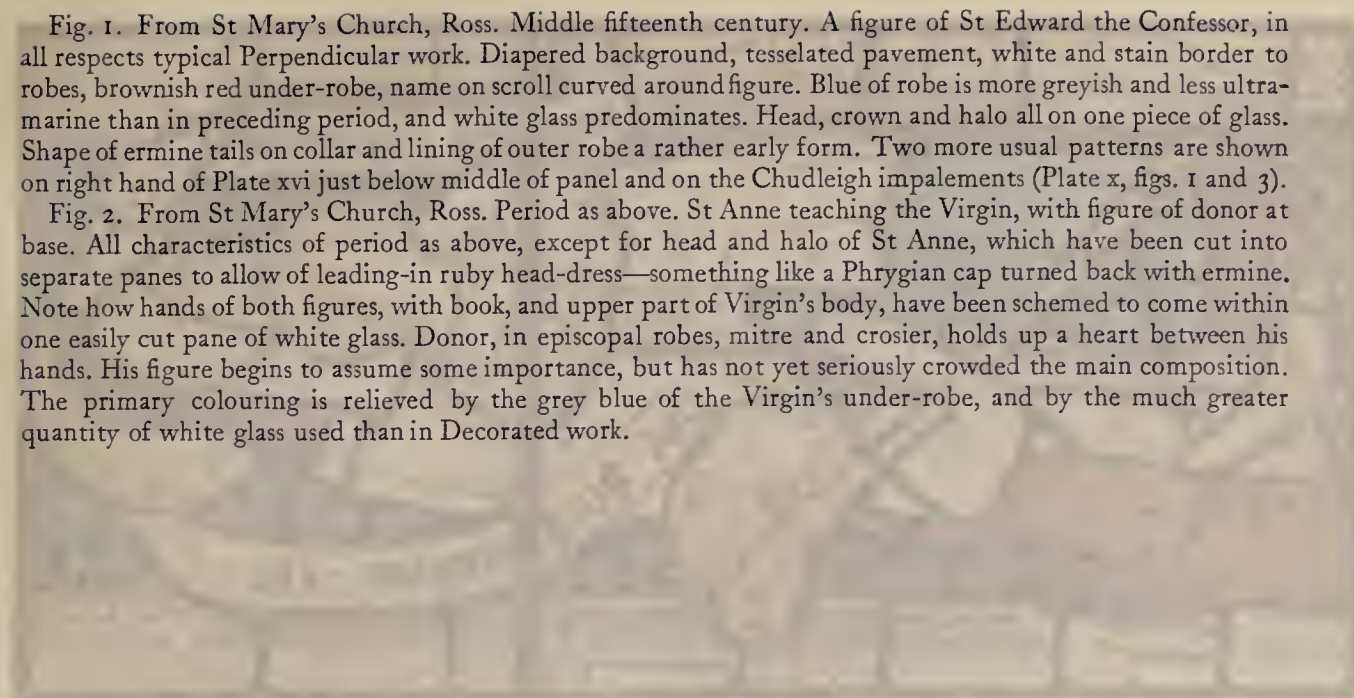
ogival curves, to him came a new birth of all that seemed to fade. A new spirit, new modes of treatment, fire-new designs to gladden the heart, and, above all, big brothers to play with who could show him how to use them. His technical skill had never failed him. A better craftsman than his forbears had been, his heart must have sung over the wealth of new designs. With such material to hand, such leaders to follow, what could he not do? He set to, light of heart, and did wonders.

The return to Pagan ideals gradually became manifest in the spirit in which windows were designed, no less than in the details of the designs themselves. From the earliest times the subjects of windows, scenes drawn from the Bible or from Holy Legends, or figures of patriarchs, apostles, martyrs, or patron saints, had occupied the entire space at the glass-painter's disposal, and if the donor desired to hand down to posterity a record of his gift, a small inscription beside his coat-of-arms, or at most a tiny portrait of himself, occupied some out-of-the-way corner where it could not be confused with the religious subject of the window. Kings and princesses, dignitaries of the Church or members of trade guilds, all showed the like modesty; but as the Renaissance progressed, religious subjects fell a little into the background and the donors began to assert themselves. Their figures grow larger and occupy more prominent positions; more and more space is usurped by their heraldry, longer inscriptions testify to their titles and dignities. Whole windows are devoted to such mere accessories: in some cases where one window is insufficient for their display they overflow into the adjoining openings. Corporate bodies were no less guilty of this ostentation, filling whole windows with their members' heraldry, and even where religious subjects or figures of saints are retained they seem rather to be placed there to the glory of the donor than to the glory of God. In a Jesse window at Beauvais, painted by Engrand le Prince, some of the scriptural kings are replaced by portraits of the monarchs of France! In many cases, especially on the Continent, an allegorical treatment occupies the window in lieu of a scriptural subject. Everywhere was evident a cooling of religious zeal.

## PLATE XI

Fig. 1. From St Mary's Church, Ross. Middle fifteenth century. A figure of St Edward the Confessor, in all respects typical Perpendicular work. Diapered background, tessellated pavement, white and stain border to robes, brownish red under-robe, name on scroll curved around figure. Blue of robe is more greyish and less ultramarine than in preceding period, and white glass predominates. Head, crown and halo all on one piece of glass. Shape of ermine tails on collar and lining of outer robe a rather early form. Two more usual patterns are shown on right hand of Plate xvi just below middle of panel and on the Chudleigh impalements (Plate x, figs. 1 and 3).

Fig. 2. From St Mary's Church, Ross. Period as above. St Anne teaching the Virgin, with figure of donor at base. All characteristics of period as above, except for head and halo of St Anne, which have been cut into separate panes to allow of leading-in ruby head-dress—something like a Phrygian cap turned back with ermine. Note how hands of both figures, with book, and upper part of Virgin's body, have been schemed to come within one easily cut pane of white glass. Donor, in episcopal robes, mitre and crosier, holds up a heart between his hands. His figure begins to assume some importance, but has not yet seriously crowded the main composition. The primary colouring is relieved by the grey blue of the Virgin's under-robe, and by the much greater quantity of white glass used than in Decorated work.







## PLATE XI



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bo  
Fi



Fig. 1.





## THE RENAISSANCE

In the same measure as he became emancipated from the cloister so the sixteenth century painter manifested a greater mastery of his craft. Daily he displayed new freedoms—in his technique as in design—daily gained more and more power to fight against the conventions inherent in his brittle material. From the thirteenth century every change of style had brought him, consciously or unconsciously, nearer and nearer to pictorial effect. The constant, if sporadic, attempts in the same direction in the fifteenth century became a continual conscious effort, and in the early years of the succeeding period—somewhere between 1500 and 1540—arrived that critical moment when stained-glass hung midway between extremes, neither Gothic nor yet all Renaissance, neither picture nor glazing, but a lovely balanced thing of exquisite beauty uniting the best attributes of all the four.

There were giants in those days. The Holbeins designed for glass : so, men say, did Albert Dürer, though it must be confessed that this claim seems unsupported by any evidence of value. Van Orley, of Holland, and Jean Lécuyé, of Bourges, glass-painters both, studied under Raphael himself. Gouda, in Holland, where the whitewashed church was glazed by the brothers Dirk and Walter Crabeth and their assistants subsequently to the middle of the century, is the mecca of glass-painters to this day. Ghiberti, Ghirlandajo, Vivarini, Raphael, Michael Angelo ; every loyal glass-painter claims them as brother workmen—as designers of windows, at the least. The greatest painters looked with sympathy upon glass-painting in this, the heyday of its prosperity.

The new impulses, new canons of taste, and, above all, the importation of such new and powerful individualities into the ranks of glass-painters render it difficult to analyse and catalogue the features of Renaissance glass with the exactness permitted by the well-marked characteristics of former styles. Strong men have a way of breaking the rules made by their weaker predecessors, and in the glass of the early sixteenth century the individuality of the painter goes for more than style. Speaking broadly, there was in some degree a revulsion against the small panel treatment of the preceding century. The painters had at last finally decided in



## A HISTORY OF ENGLISH GLASS-PAINTING

favour of pictorial treatment ; the heroic picture was their model, and they regarded the stonework of their windows merely as so many frames to fill. What sense in painting a second frame within it ? The canopy which hitherto had served as such a frame could go, and so could all accessories not directly pictorial in themselves. Canopy, bases and shaftings ; scrolls with inscriptions ; the little quaint emblems that had served to fill the minor tracery openings, all fell more or less rapidly into disuse.

The canopy made a brave fight. It had so long been an integral part of all stained-glass windows, and possessed in itself so many opportunities for varied treatment, that it lingered in one form or another till well past the middle of the century. Gothic in conception and purpose, it could none the less be adapted to classic details, and many examples of such a combination are most effective. But it no longer framed the figures as a matter of course, its retention or otherwise depending on the painter's individual taste. No canons of the new art either prescribed or proscribed its use.

Where canopies did occur they came eventually to be designed throughout, so far as details are concerned, in the new Classic style. Some efforts were made during the period of transition to wed Gothic details with Classic proportions—much as some of the Renaissance carvings in St. Paul's Cathedral show marked Gothic feeling. The canopy over the figure of St. Swithun in the Choir of Winchester Cathedral exactly illustrates such an effort (Plate XXXIII, fig. 4). The lower portions of the canopy shafting are circular on plan, and a circular shaft supporting a horizontal entablature is as old as Egypt ; the square-panelled soffit under the canopy is nothing if not classic, and yet in spite of this classic planning the canopy details are entirely and unmistakably Gothic. The little buttressed pinnacle at top, the quaint tiled or slated roof, the row of quatrefoils at its eaves, the series of cusped window openings below them,—could anything be less classic than such an ensemble ? But in the end the exact reverse of this treatment prevailed. It was the spacing and general design that remained Gothic, the canopy still retaining its earliest appearance as of a hood or niche over the figures below, and though in minor details it became

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more and more classic as the style advanced, it could never in the nature of things be anything but a Gothic feature, the product of a wet northern climate, where sculptures to endure must be shielded from inclement weather.

In England, where the Gothic style had developed more slowly and taken deeper root than elsewhere, the transformation to Renaissance took place more gradually than on the Continent. It was in our blood, just as Classicism is in the blood of the Latin nations. Long after the Renaissance was an accomplished fact we find countless instances of throwing back, of some reversion or other in treatment and feeling, to the original Gothic type. The canopy especially clung to its original planning, and the essentially Classic entablatures and angular pediments, so readily adopted throughout western Europe, were far less frequent in England, and where they do occur always have an air of being used under protest.

However classic its details might be, the under-lying purpose of the canopy was essentially Gothic, and the glass-painter, working in a handicraft that was born of and had grown to maturity side by side with Gothic architecture, was not the man to forget the fact. Thus, though the old angular shaftings of the Perpendicular period, varied with tiny weatherings and pinnacles, became circular columns, moulded like balusters and wreathed with foliage, or square-faced pilasters enriched with trophies or symmetrical arabesques, they still retain their position at the sides of the lights, and still support arches—or more rarely entablature—over the subject panels. Though the arches are round instead of pointed or ogival, though the entablature mouldings may confess themselves Classic at first sight, their purpose is unchanged. All the essentials of the Gothic canopy are still there, altered in form but the same as ever in effect (Plate XXXIII, fig. 5). The Gothic pinnacles, with their crockets and finials, give way to baskets of fruit and flowers, to vases, urns, flambeaux, or little figures of amorini, but these still lead the eye up to the cusped head of the stonework, contrasting with the background colour between them just as the old pinnacles had done. Even the comic little flying



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buttresses which had formerly linked Perpendicular shafts and pinnacles together are replaced by "swags" or festoons of foliage hanging across from side to side of the design.

No feature is more certainly representative of the period than these hanging festoons. What little conventional framing the period allows to windows is almost certain to display them in greater or less profusion. Subject work apart, it was an age of strapwork, cartouche and festoon.

As might be expected, the subject compositions are bold, free, and masterly in drawing and arrangement. No more of the constrained attitudes, the narrow draperies of the Gothic window. The confused gorgeous richness of the twelfth century, the stiffly ranged, heavily coloured figures of the Decorated period, the quaintness of the Perpendicular window—all are gone. With his eye upon the great masters, the glass-painter learnt to draw, and drew powerfully and well, his heroic figures, amply and gracefully draped, being vigorous enough to carry easily their inevitable harness of lead lines. Confident in his new strength, it became the glass-painter's conviction that what could be done on canvas could be done in glass, and he set himself boldly to override all the conventions of his craft.

Sometimes his material revenged itself upon him for his daring. To take but one instance, the halo or nimbus around saintly heads beat him entirely. The Gothic painters had treated it boldly as a white or coloured circular plaque, forming an effective background to the head it distinguished; but such a flat convention held no appeal for the painter who had seen it in pictures as a delicate ring of light hovering in perspective above, not behind, the heads of saints. He, too, the glass-painter, would draw it separated and in perspective. He did, and the effect induces a lasting wonder that he should have persevered in so hopeless an attempt. The necessary lead lines solidified his ring of light, binding it to its unfortunate owner's head with a heavy line that recalls anything rather than a holy attribute. The well known figure of St. Bonnet, in the church dedicated to him at Bourges, which was painted by Jean Lécuyé in 1544 (Plate XII, fig. 3),

## PLATE XII

### HERALDRY, BADGES AND DEVICES

Fig. 1. From Mr Radford's Collection. Sixteenth-century quarry in white and stain. Circa 1540. Initials of Thomas Brerewood, Rector of Bradninch, Devon.

Fig. 2. From Mr Grosvenor Thomas's Collection. Circa 1620. English Jacobean quarry with arms of Carew in white and yellow stain. Some faint touches of enamel on cartouche surrounding shield.

Fig. 3. From St Bonnet, Bourges. Dated 1544. By Jean Lecuyé. Device of a donor—two falcons and the initials L. F. within a lozenge. Note also the clumsy appearance of saint's halo, drawn in perspective.

Figs. 4 and 5. From Hall of Magdalen College, Oxford. Portraits of Charles I and Queen Mary. Dated 1633. Fig. 4 shows the roses of England, fig. 5 the lilies of France. Treatment entirely enamel and stain. No pot-metals or abrasion.

Fig. 6. From St Edmund's-on-the-Bridge, Exeter. Circa 1440. Arms of Coplestone. Note insertion of red tongues in blue leopard's faces, and second insertion of lower face into white field of coat-of-arms.

Fig. 7. From Mr Radford's Collection. Circa 1580. Quarry painted with a peacock in white, yellow stain, and blue enamel. Crest of the Comerford family.

Fig. 8. From Mr Radford's Collection. Circa 1600. Quarry in white, yellow stain, and red enamel, painted with a lion vulning a bull, the crest of the Haydon family. Note reversion to strapwork margin, reminiscent of the first fourteenth-century quarries.





PLATE XII

[illegible]

# PLATE XII



Fig. 1



Fig. 2



Fig. 4



Fig. 3

WILFRED DRAKE Del.



Fig. 5



Fig. 7



Fig. 6



Fig. 8





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provides a good example of the ridiculous length to which was carried this striving after pictorial effect. The saint's halo looks like a berêt or a clumsy tam o' shanter. Compare it with the head of the Mater Dolorosa (Plate V, fig. 4), which was originally surrounded by a flat yellow halo. It seems inconceivable that in a mere forty years—and those years, be it remembered, a period of live artistic feeling—so fine a feature could have become so ridiculous. Could anything be finer than this sorrowful head? See how cunningly the painter has aided the effect he desired by the most delicate touch of red about the eyes, and by the little shadows of Our Lady's tears. French, that. No English painter of the period that I know could have achieved it. He would have outlined each drop separately with a thin hard line where this man has only hinted at their existence, a hint rendered even more delicate by the strong contrasting outlines of the eyelids and the pupils. This is the work of a master—no less. But master though he was he was tempted a little too far by the facilities of his new material. He could not resist the temptation to go further and touch the cheeks with the same red enamel to make them contrast more sharply with the whiteness of the coif-like drapery around the face. He did it well and with restraint; a delicate touch or two and no more; but see in the same panel what his followers made of it. The broken seventeenth-century head (fig. 5) still retains some claim to beauty, though the increased use of enamel renders it muddy and poor, whilst as for the eighteenth-century example (fig. 6), painted throughout in red "flesh" enamel, it is merely ludicrous.

The painter of that Virgin's head could never have foreseen how those who followed him would go wrong. Even now, when the whole tale is told, it is difficult to realize that this beautiful little head was the first step in a wrong direction. Challenged, its painter could have pleaded precedent—or what doubtless looked to him like precedent—for the use of flesh colour. His forefathers used it till well into the fourteenth century, crude brick-reds and browns, much darker than his enamel. It would have been difficult to persuade him, rejoicing in a triumph of masterful delicacy,



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that his method was at fault; that the very crudity of the earlier material, its archaic drawing and clumsy outlines were right, and that he, for all his skill, was going wrong. Even now with the beauty of his first departure pilloried alongside the later wretched fruits of his wrong-doing, his use of enamel is difficult to recognize as a warning at first sight. Had it gone no further it would have been a trifling matter, and such small matters apart, the Renaissance undoubtedly produced the finest glass the world has ever known, and—it bears repetition—nowhere was it better than in England.

To the student of English glass, acquainted with the history of our best examples, this will seem at first sight a somewhat doubtful statement, for nothing is more surprising than the large number of continental windows of the period now fixed in England. Again and again, as one enumerates the best known examples of Renaissance glass which we possess, one is forced to admit that this or that is not a native product but has been imported from beyond the seas. The east window of St. George's Church, Hanover Square—very fine work, by the way—is part of a Jesse window, some say from a convent near Maestricht, some from a church in Mechlin. Despite doubts as to its exact place of origin it is unquestionably Flemish work. So is the east window of St. Margaret's, Westminster, and so are the apsidal windows in the Lady Chapel at Lichfield, which came from Herckenrode, near Liége. The sixteenth century glass in St. Mary's, Shrewsbury, is probably from the Low Countries as well. The east window at Rickmansworth came from Rouen; and so did the interesting series of panels in the west window of Wells Cathedral. There is a considerable amount of French glass in the three-light west window at Salisbury Cathedral, and some more in the choir of Southwell Minster. Countless other instances might be given, until it seems as though there could have been no English glass-painters left alive in the sixteenth and seventeenth centuries, so numerous are the specimens of continental work throughout our country.

But examples of native work are not far to seek, and they bear



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comparison with the best of the imported glass. Some of the King's College windows at Cambridge may be classed with the finest glass ever painted. Here we have the essential characteristics of the best of English Renaissance work. The earliest of them were designed by one Bernard or Barnard Flower, the King's glazier, who was succeeded in this work, as also in his Royal appointment, by one Galyon Hone. More of Bernard Flower's work may be seen in Henry VII's Chapel at Westminster. The series of windows at King's College illustrate the progress of the English Renaissance admirably. They vary in merit from mediocrity almost to perfection, in style from the earlier transition from the Perpendicular to the most typical examples of the Renaissance at its best. Bernard Flower, who died about 1526, was succeeded by three glaziers under Hone, all of whom are named in the contract for the windows, which contract further provides for the assistance of two others as sub-contractors under the principals to the indenture. With so many masters it is not surprising that the windows vary greatly in character. All the six "glasyers" resided in London, either at Southwark or Westminster, so that the glass may be claimed as typically English. Even the material was English, a stipulation that "Normandy glass" was to be used throughout having been deleted from the contract.

It is impossible here to treat the series in detail, but so well do they illustrate the character of early Renaissance work that some references must be made to their more salient points.

The window containing the subjects of the Annunciation and Nativity displays the transition form of canopy to perfection. Level entablatures, in conjunction with flattened elliptical arches, join the outer pairs of lights, each pair containing a single subject. Medallions with heads fill the spandrels, amorini hold festoons above them, no attempt is made at cresting or pinnacles, and the general effect is strained and uninteresting. In the Caiaphas window the canopy details are still Classic throughout, but a grotesque figure with human head and torso and foliage for arms and legs, crowning each light above a rigidly level frieze-like feature, recalls in its general form a pinnacle or gable end. Below,



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in the same window, is another new treatment destined to become a great favourite on the Continent in the decadent years of the seventeenth century. The canopy, round-arched, with a frieze and triangular pediment, is made part of the subject itself, its columns rising from behind the assembled figures so that the whole forms at first sight an architectural background rather than a true canopy. This example is not without dignity, but the use of architecture in this manner to such a large extent soon led to evil results, as may be seen at St Eustache, in Paris, where a series of seventeen figures are lost amidst acres of uninteresting architecture (Plate XXVIII, fig. 1).

But where the national taste of the King's College artists was allowed free play, we find the merit of the windows increase in exact ratio as they show more and more of Gothic tendencies. Take the window over the north door. Its planning is Perpendicular throughout: small separate subject panels, each with its own canopy, and each canopy forming the well-known Gothic hood. Cusplings, pinnacles, vaulting, arches, all are there; all truly Renaissance in character, but in situation, planning and purpose as Gothic as canopies well could be. The subject work is perfect, the opulent figure-drawing of the period restrained by the skilled hand of a Gothic craftsman; a compromise truly, but a compromise elsewhere unsurpassed. The great east window, executed by Hone and his companions, shows in the lower lights a somewhat similar treatment to that in the Caiaphas window—architectural backgrounds that may or may not be described as canopy work, though past denial they discharge all the functions of the canopy. In the upper nine lights, which contain an enormous Crucifixion, the canopies are omitted entirely, so that the chapel windows present every step from the development of the Renaissance canopy to the final triumph of the entirely pictorial window.

One feature typical of the period is lacking, and that a feature already referred to as being most noticeable in large Renaissance windows—the almost inevitable portraits of the donors. Such figures, sometimes with coats-of-arms, and often accompanied by their patron saints, become more and more prominent from

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the beginning of the sixteenth century, until they almost crowd out the proper subject of the windows they presented. Some of these portraits are very fine. The glass-painter could paint well, by this time, and he appears to delight more in the portraiture of living people than in the imaginary likenesses of long departed saints. Visitors to King's College can see one such portrait, not in the main chapel but in Robert Hacomblyn's Chantry, erected by that Hacomblyn whose name heads the "Indenture" commissioning Galyon Hone to continue the series of windows. This figure is regal, crowned and holding a sceptre, and it has been suggested that it is a portrait of Henry VI. The chapel of the Vyne near Basingstoke also contains some excellent portraits, amongst them being Henry VIII and Catherine of Aragon, accompanied by their patron saints, after the usual custom of the day.

Speaking generally—and as has already been explained, it is impossible to cite any rules without numberless exceptions where Renaissance glass is concerned—speaking generally, the first things that strike a close observer in examining glass of the period are its comparative thinness and better manufacture and the coarseness of the glass-painter's technique. A heavy stipple was in favour; reddish brown shading colour, stippled dry in a level coat over the whole surface of the glass, and the lights wiped out, probably with stiff hog-hair brushes. This method, executed somewhat less roughly, is in use at the present day, and it makes its first appearance early in the sixteenth century. Hitherto the outlines had been left to do most of the work. Wherever glass could be left clear without its staring, a minimum of paint had been applied, the outlines where necessary being aided only by soft shadows, generally laid in some oil medium and delicately stippled to a semi-transparent film. A large proportion of the surface—far more than was required by the high lights—was left entirely clear. Now, with pictorial effects in view, the painting had to be heavier so as not to contrast too harshly with the lead lines, and the shadows, being thicker and darker, required more stippling with the point of the brush to give them any appearance of translucency at all. The roughly



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dappled shadows common in this period are a natural consequence of the heavier, harsher treatment. Some idea of the increased depth of Renaissance shading may be gained by comparing the shaded portion of the scrap of sixteenth-century canopy near the centre of the panel on Plate VIII with the Perpendicular examples, dated 1430, to the right of the same panel.

With these heavy overlying shadows the outlines become less noticeable, but for all that the use of outline-colour is in reality considerably increased. In work on a large scale the shading colour is aided by delicate lines, traced with the point of a fine brush, giving the effect of a line etching, strengthened by washed shadows, even flesh being treated in this manner, as may be seen on the large sixteenth-century hand in the centre of Plate XIII. Further, outline colour henceforth is sometimes used in solid opaque patches, to give the effect of black garments or other features in the composition. This had been attempted, it is true, in the preceding period. Very small Perpendicular figures subordinate to the main design might have their shoes, or some such tiny accessories, blacked in solid, but wherever it was possible to glaze such features in dark brown or purple, opacity was avoided, and wisely, for if glass be not transparent it has no *raison d'être* whatever. The Renaissance painters, however, declined to bow to the limitations of their predecessors. If it was permissible to paint things black in a picture why not in a window? In a period when the best of glass-painting was being done this little point is one of the strongest evidences that the seeds of decadence were sown.

The colour—that is to say the pot-metal glass—in sixteenth century windows shows a tendency to get lighter in tone. Deep rich colour was avoided. It was too powerful for the pictorial effect required. Grey-blue backgrounds, pale purplish architecture, naturalistic greens—all pretty enough in their way, even though lacking the richness of the earlier styles. The neutrals of the Perpendicular period are retained, but, being loaded with paint, their subtle colour qualities are lost and they become muddy and uninteresting. An instance of this appears on Plate XIII. Impossible as it may seem, the dark brown patch towards the bottom of the

# PLATE XIII

## PERPENDICULAR AND RENAISSANCE DETAILS



This panel is of fragments from a private collection.

Fig. 1. Portion of Perpendicular vine leaf, in white and stain. Circa 1400. Note how the leaf, when whole, was planned almost exactly to fit a square pane.

Fig. 2. Fragment of blue. Circa 1390. Transition Decorated to Perpendicular. Compare with figs. 15 and 22.

Fig. 3. Portion of Perpendicular border, in white and stain. Circa 1450. Note cool greyish tone of white glass and poor character of foliage, both typical of the Perpendicular period.

Fig. 4. Portion of pale-greenish drapery. Circa 1450. Note heavily diapered pattern scratched out of laid and stippled coat of matt.

Fig. 5. Lower portion of tracery figure in armour standing on tessellated dais. Circa 1440. White glass much corroded except where protected by yellow stain.

Fig. 6. Fragment of red drapery. French, circa 1500. Shading laid almost flat and stippled, and high lights wiped out with stiff brush when dry.

Fig. 7. Fragment of conventional lily, in white and stain. Circa 1520. Shadows helped out by touches of outline colour, varied stain and slight "backing" of matt on exterior of glass.

Fig. 8. Portion of crowned Perpendicular head. Circa 1460. Note delicacy of outlines and shading, especially in hair and beard.

Fig. 9. Fragment of Perpendicular tracery painted with conventional leaf. Note tertiary colouring—a pinkish brown—which first occurs in Perpendicular potmetals.

Fig. 10. Fragment of hand and drapery. Flemish, circa 1520. Flesh of hand covered with a light coat of enamel; fur of cuff backed more heavily with the same. All shadows strong, coarsely stippled and aided by outline colour. Lights wiped out when dry.

Figs. 11 and 12. Two fragments of Perpendicular tracery. Circa 1450. One clear, one stippled lightly with a coat of matt. Characteristic tertiary colouring.

Fig. 13. Fragment of diapered potmetal from Canterbury. Circa 1350. Characteristic tone of Transitional blue. Compare with figs. 2, 15 and 22. The rounded yet rich diaper pattern seems to indicate a Continental influence.

Fig. 14. Scrap of Renaissance drapery. Circa 1530. Shadows coarsely stippled on thin pale pink glass of poor quality.

Fig. 15. Perpendicular rose. Circa 1480. Greyish tone of blue glass typical of Perpendicular work. Centre stained yellow.

Fig. 16. Portion of Perpendicular rose. Circa 1480. Bright pinkish tone of ruby glass also characteristic of period.

Fig. 17. Scrap of Renaissance background. Circa 1550. Colour of glass almost exactly identical with No. 12, but obscured by heavy stippled matt, giving a muddy and poor effect.

Fig. 18. Fragment of Renaissance architecture. Flemish, circa 1540. Heavy matt on poor and thin white glass again produces a muddy effect.

Fig. 19. Portion of Perpendicular rose. Circa 1450. Painted in outline only in potmetal yellow. This colour becomes more rare as the use of yellow stain increases, but where it does occur it is generally of the deep "old-gold" tint shown in this piece and in pane No. 23, this deep cool yellow being almost the only tint of that colour that could not be reproduced in stain, the dark shades of which invariably tend towards a reddish tone.

Fig. 20. A fragment of Perpendicular ruby drapery. Circa 1440. This piece having been fixed with the flashed side outside the ruby has been pierced by corrosion holes which show as white specks—a very unusual instance.

Fig. 21. Another fragment of Perpendicular ruby of about the same date. A very typical example of the tone of colour obtaining at this period.

Fig. 22. A fragment of typical Perpendicular blue. Circa 1450. Sky background with clouds wiped out of stippled matt.

Fig. 23. A fragment of typical Perpendicular yellow potmetal. Circa 1430. Unpainted and badly corroded.













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right-hand edge is almost exactly the same coloured glass as the delicate Perpendicular pink above it, but it is so obscured by heavy painting that all the delicacy of the colour is lost. To compensate for this excessive brownness there was a reversion to primaries, pale in tone to suit the prevailing taste, but primaries none the less. A pale blue occurs, with pinkish pale rubies, and a whole series of yellows, varying from sulphur to orange. A preponderance of this blue marks many windows of the period, notably the east windows of St Margaret's at Westminster and King's College Chapel.

During the first half of the century enamel makes its appearance, and another method of obtaining colour without the use of a lead line was added to the processes already in use. The procedure is simple enough. Glass of the colour required, ground as fine as possible, was mixed with an oil or similar medium, laid on the glass, and fired. The heat of the kiln burnt away the medium, reuniting the tiny particles to each other and to the glass on which they were laid, so that the pane thus treated presents the appearance of having a thin skin of melted glass of the colour required laid just where the painter wanted it.

The method has one serious drawback. It is not uniformly durable, the enamel having a tendency after a while to flake away from the parent pane. But its convenience was past denying; very pretty effects could be obtained by its means, and from the middle of the sixteenth century it occurs more and more frequently, though for a long time its use was more restrained in England than on the Continent.

It would seem as though the range of colours produced by such a process was unlimited, but as a matter of fact very few colours were found suitable in practice. A good clear blue is common; red, similar to that used for warming flesh colour, is less in favour, perhaps because of the difficulty of firing it to transparency. The earliest instance I have seen of its use as local colour is in some heraldic work from Evreux, about the year 1530, where it is muddy and opaque. A good example occurs on Plate V beside the head of the Flemish Madonna on the left (Fig. 5). This dates from about 1590, and although the colour is level and of good character it can-



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not be called transparent. Stain floated heavily on the glass and fired at a high temperature produces a transparent red, and later on was sometimes used in place of enamel; but the earlier attempts are unreliable in effect, having a tendency to be uneven, and firing to a dapple of red blotches on dark yellow. Green and purple enamel, though brought to perfection on the Continent, and especially in Switzerland, seem rarely to have been employed here, and small touches of green on white glass are generally produced by enamelling the glass blue on one side and staining it yellow on the other.

This method of applying colour without glazing is naturally used more for such small passages as occur in heraldic work, or in small windows suitable for domestic purposes, than in the larger subject windows in churches or public buildings. The same remark applies to abrasion, which was freely used and with far greater skill than heretofore, though in England the glass-painters never seem to have attained to such adroitness in its execution as may frequently be found in continental work. With us the abraded portion always shows plainly the marks of the grinding, the white glass remaining after the coloured "flash" was ground away nearly always having the effect of ground glass, owing to its trituration with emery powder—or whatever material was used. On the Continent, and especially in Switzerland, the portions ground out are as clear as the rest of the glass, and, owing to the employment by the Swiss glass-painters of a copper wheel with the emery powder, the edges of the abraded portions are so bright and sharply defined that at first sight they present the puzzling appearance of having been gouged out by a sharp tool, the bottom of the hollow being afterwards polished to a level face. The appearance of work finished in this way suggests marvellous skill on the part of the craftsman.

Two other methods of introducing small passages of colour without connecting leads are now more frequently found in use. These are generally known as annealing—or plating—and insertion. Neither was new. A rather puzzling example of the former, which from its general appearance might well be as early as the middle of the fourteenth century, is shown on Plate VII, fig. 8,

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and the Courtenay shield from Ashton (Devon) (Plate X, fig. 3), in which the *torteaux* have been inserted in drilled circular holes, dates from about 1440. Another instance occurs in the Ockwells glass illustrated on Plate XIV<sub>A</sub>. The jewels in the crowns, both round and diamond-shaped, are all drilled out from the glass on which the crown is painted. But both processes are extremely tedious and difficult, even with smooth, thin glass, and the thick rough material in use anterior to the sixteenth century must have militated to a great extent against their employment. Annealing consists of laying a small thin flake of colour on a large pane of white glass exactly in the place where colour was required, tracing a thick line of outline colour around it at its junction with the background, and then firing the two pieces together in the kiln. It had its uses, limited though they were. Jewels, for instance—tiny bright pieces of ruby, blue or green glass—could be fired to a white mitre or crown, yellow stain being afterwards added to simulate gold embroidery on silver or wrought goldsmith's work. But the method was uncertain. Differently coloured glasses, owing to the variations in their chemical composition, were affected differently by climatic or other conditions, and in time the jewels almost inevitably fell off from the pane to which they were attached. This, combined with the difficulty of the process, perhaps explains why so few examples of annealing are met with at the present day. The same drawback—flaking off—applies in a lesser degree to enamel colours, and the condition of the glass from which they have flaked is a valuable evidence of age.

Insertion was a matter less of chance and more of manual dexterity. Granted care in handling, panes so treated are very durable, and in consequence examples are more frequently encountered. A hole was drilled in the pane it was desired to colour, the coloured portion shaped to fit the aperture was cut from another sheet of glass, and then, surrounded by a ring of lead, slipped into place, and secured by smoothing down the flanges of lead on either side. More rarely this inserted piece of colour was again treated in the same way. The blue leopard's heads with



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red tongues in the Coplestone arms on Plate XII show this perfectly.

First the blue pane on which the leopard's head is painted was drilled to admit the red glass for the tongue. Then, the tongue inserted, the head itself was let into a hole in the white glass forming the "field" of the coat-of-arms. This is unusual, and the example illustrated a fine, painstaking piece of work. It dates from the latter end of the fifteenth century. The principal drawback to this process, after its extreme difficulty, was the liability to breakage of the parent pane, weakened by perforation. As may be seen, both of the examples shown have suffered in this way. The Courtenay arms, though less intricate than those of Coplestone, must have entailed greater care in manipulation, for the shield-pane, besides being rather large for its period, is much thicker at one end than the other, and in addition to this is remarkably warped out of truth, being more like a shallow saucer than a pane of window glass.

As has been said, the technical difficulties presented by the material itself were quite enough to keep these elaborate methods out of general use until the beginning of the sixteenth century. Then, with smoother, thinner glass to hand, the glass-painter adopted them to a far greater extent. The diamond had just come into use for cutting glass, and doubtless aided him greatly, at least so far as insertion was concerned. The edge of a piece of glass that has been cut with a diamond is unmistakable, and cannot for a moment be confused with the work of the hitherto universal grooving-iron. A grooved edge of any period whatsoever not only presents a chipped appearance—varying from the roughness of chipped flint to the regularity and minuteness of modern postage-stamp perforations—but it is never exactly perpendicular to the surface of the glass. Spalling off the surplus glass with the grooving-iron produced a bevelled edge, the bevel generally being on the unpainted side of the glass. This is due to the glazier holding his work with the side destined for painting uppermost. Edges cut by a diamond, on the contrary, are approximately at right angles with the surface. The upper, or painted side, of the glass

## PLATE XIV

### DONORS AND THEIR BADGES

Fig. 1. Perpendicular quarry in white and stain. Late fifteenth century. Broomplant, the badge of the Plantagenets. (Compare this separate spray with earlier example treated as a continuous pattern: Plate vi, fig. 3.)

Fig. 2. Perpendicular quarry in white and stain. Middle fifteenth century. Crozier with name of W. Donel-terre, abbot of Clive, on scroll.

Fig. 3. Perpendicular quarry in white and stain. Late fifteenth century. Crowned initial of Richard III.

Fig. 4. From Chessington Church, Surrey. Middle Perpendicular quarry in white and stain. Initials and badge of Henry VI and Queen Eleanor.

Fig. 5. From Dr Aitchison's Collection. Circa 1420. A Royal donor. Tabard emblazoned with England quar-tering France over plate armour and chain mail. Height  $8\frac{1}{2}$  inches.

Fig. 6. Circa 1440. Two kneeling donors, male and female, on Perpendicular quarry background. The man kneels at a prie-dieu, the woman holds a rosary. Both outer robes are ruby, but the sleeves of the man's under robe are green. Size, 13 inches high by 12 inches wide.







PLATE XIV



Fig. 1



Fig. 5



Fig. 2



Fig. 6



Fig. 3



Fig. 4





## THE RENAISSANCE

generally shows the marks of the diamond scratch, but the other corner of the edge is usually clean and sharp, and it is this edge that cuts careless fingers. Without violence it would be a difficult matter to cut one's hand with a grosed edge, and the same remark applies to a diamond-cut on the side where the diamond ran, as the scratch of the tool blurs the edge. Under a magnifying glass this scratch presents a somewhat similar appearance to the later and more skilled work of the grosing-iron; but to the naked eye the two are unmistakable owing to the difference between the bevelled and squared edges. Plate XXIX, fig. 1, shows five different descriptions of edges. The lower and most coarsely chipped is of an early fourteenth-century border. Immediately above it is a piece of perpendicular background. Next above is the selvedge, smooth and rounded, of a late fourteenth-century "crown" sheet. Next is a broken edge, and the uppermost piece is a scrap of eighteenth-century ruby, cut with the diamond.

Not only does the diamond supplant the grosing-iron in the sixteenth century, but another mechanical appliance—the lead-vice—now comes into use. The date when the cast "calmes" of lead were first lengthened by being squeezed through a small aperture between a pair of iron wheels with milled edges is not yet satisfactorily settled, but it was almost certainly very early in the century. Swiss panels with milled leads exist which bear dates as early as 1520, and they present no appearance of having been releaded, whilst a Tudor lantern at Hardwicke Hall for the most part still displays its original lead lines, which are of milled lead throughout.

Milling the lead was not only economical, more than doubling the length of each calme so treated, but the milled lead was far more pliant than the cast. On the other hand it was much thinner than the old cast calmes, and combined with the thinner glass of the period it rendered the glazing weaker than before. This, however, was to some extent counterbalanced by the improvement in the quality of the lead. To pass through the "lead-vice," the calmes must be of the purest metal, without flaws or adulteration. Even the inclusion of a few pieces of solder with the scrap lead in



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the melting pot is sufficient to injure a vice, and flaws or faults which passed very well in the cast calmes revealed themselves at once under the new method.

For reasons of economy the leads gradually became thinner and thinner, until in the eighteenth century their flanges were no thicker than stout paper, and the glazing in consequence became fragile to breaking point. But the sixteenth-century leads are in general stout enough for their purpose, and as to eighteenth-century stained-glass, very little of it was worth the saving. So no great harm was done, after all.

The two methods—muff and crown—of blowing glass into sheets have already been described. For some unexplained reason the Gothic glass-makers during the fourteenth and fifteenth centuries seem to have almost entirely relinquished the muff process, which formed approximately square or oblong sheets, and confined themselves to turning out the circular sheets or tables known as crown glass. Early in the sixteenth century the muff method came into favour again, and better materials being in use, white sheet glass for the first time becomes fairly transparent. It had always admitted light, of course; but it was only now that it could be easily seen through. It was not pure white, by any means. Its tint varies from a cool pale green to a thin brown, almost the colour of horn—very similar in tone to much of the white glass in use in the thirteenth century. But whilst the earlier glass was thick and of such faulty manufacture that it often looks more like chipped flint than glass, some of this sixteenth-century product was scarcely thicker than half a dozen sheets of the paper on which this book is printed, and it permitted a serviceable, if slightly distorted, view of the objects seen through it. For the first time in the history of English glass, windows were made to be looked *through*, and not *at*.

Such a vital change of course had an immediate effect upon the design of glass for secular buildings. The painted quarries, so prevalent during the fifteenth century, vanished almost entirely, and windows glazed in clear unpainted panes—at first merely square or diamond-shaped—took their place. The medallion

## THE RENAISSANCE

bearing the owner's coat-of-arms or monogram was retained, so that the most popular type of sixteenth-century domestic window was a leaded light made up of transparent panes of white sheet glass, colour, paint and stain being confined to one or two central medallions, with perhaps a narrow ornamental border round the light. Design varied according to taste, but the general arrangement remained constant, even as late as the early eighteenth century. The medallions changed their form from round to square, oval, or lozenge; the plain square or diamond-paned background came to be leaded in a rich variety of geometrical patterns; but despite such minor irregularities the general appearance of a background of clear glazing with its centre stained and painted remains the same.

Some idea of its popularity may be gained by the fact that one Walter Gidde found it worth while to publish, in 1615, a whole book of these geometrical glazing designs, entitled *A Booke of Sundry Draughtes principally serving for Glasyers*, and many of the designs contained therein remain in use to the present day. They show a great variety of arrangement, almost every conceivable geometrical form that could be cut in glass being pressed into service. Sometimes in addition to the central medallion one single pane here and there would be painted with its owner's monogram or crest, and very pretty little things they often are, the use of enamel enabling the painter to make them dainty little spots of colour—a pleasant relief from the uniform white glass around them.

The heraldic work used for the medallions was now at its best. The shields were generally surrounded by some form of border, or placed upon a cartouche presenting the characteristic features of the period—strapwork and amorini, classic columns with foliated capitals and festoons—all employed, as they properly should be, in a subsidiary position, as framings to the shields they enclosed. During the reign of Henry VIII a favourite treatment is to place the coat-of-arms on a circular medallion as in the preceding century, but with the addition of a wreath around it, generally of green foliage varied by white, red or yellow flowers and fruit. For regal



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heraldry, such as the arms of Henry VIII and Jane Seymour, illustrated in the frontispiece, the red and white York and Lancaster roses are a frequent device. (See also XIV<sub>A</sub>, fig. 4.) Many other such wreathed coats-of-arms were removed from Nonsuch House at the time of its demolition, and are now scattered all over England in private and public collections. All the Tudor badges are in great favour: the portcullis, the crowned rose, the split pomegranate of Aragon, occur over and over again. The example given shows very clearly how far the heraldic glass-painter had come to rely on abrasion to achieve results suitable for the richer, smaller heraldry of the period.

Besides heraldic work this century also produces a great quantity of subject medallions executed on white glass in outline, shading colour, and yellow-stain. Though relatively few of these pretty little circles were produced in England—the vast majority being imported from France and the Low Countries—they are of such common occurrence that no description of sixteenth-century glass would be complete that did not at least make mention of them. (Plate XXVI.) Their subjects were drawn from all conceivable sources, secular fables and legends being mixed with religious or family histories in the most heterogeneous manner. Subjects from the Apocrypha are frequent—the Story of Susanna and the Elders being perhaps as common as any. The Prodigal Son is also a great favourite—the coarse taste of our forefathers sometimes permitting a realistic licence that we of a later day are prone to find more than embarrassing. These circles, like the coats-of-arms, were used as centres to windows, being leaded up on the same transparent backgrounds, thus giving some interest to the design whilst not interfering with the view through the surrounding panes of glass.

On the Continent, and particularly in Italy and the Low Countries, the framework around the central medallion occasionally breaks out into foliage and arabesques. They are slenderly drawn, and delicately painted, so as not to prevent the window being seen through, but their foliage, festoons and arabesques spread over the whole surface of the window instead of being confined to its centre. This practice is unusual in England, and though it occurs here and

# PLATE XIV<sup>A</sup>

## SECULAR HERALDIC GLASS

Fig. 1. From Ockwells, Berks. Circa 1450. Arms of Henry VI and Margaret of Anjou. Other windows in the same series display the earliest known lambrequins in stained glass; but this example is, if possible, more interesting by reason of their absence. Their treatment presenting considerable difficulty, the painter of this panel has endeavoured to make the supporters and royal crown perform their function of separating the shield from the quarry background on which it is placed. The crown, deeply coloured and greatly exaggerated in size, does this perfectly, but the supporters, in pale yellow and white only, are cramped and awkward. The alternation of diagonal inscriptions with rows of quarries is worthy of note as a peculiarly Perpendicular trait.

Fig. 2. From Bampfylde House, Exeter. Circa 1460. Bampfylde impaling Kirkham. The Bampfylde impalement has been damaged by clumsy restoration, the three mullets and field being of modern glass. A circular scroll with inscription, containing some blue glass as background, separates the shield from the surrounding plain glass. A very early example of this treatment.

Fig. 3. From Ashton, Devon. Circa 1440. Chudleigh impaling Champernowne. Much better workmanship than the last shield. Compare the Chudleigh lioncels with abraded spaces between their forelegs and adjoining their tails with the blocked-in bearings of the very similar Kirkham arms. In this instance the shield occupies the centre of a cusped medallion, a very unusual treatment. The background of the Champernowne impalement has disappeared, but the glazing of the saltire is a very painstaking piece of work, containing no less than thirty-five panes of glass, the saltire itself being barely seven inches high by three inches wide.

Fig. 4. From Cowick Priory, Devon. Circa 1540. England quartering France, surrounded by a green wreath with the white and red roses of York and Lancaster (the latter with their centres abraded), and surmounted by a Tudor crown. Compare the treatment of this example with the contemporary medallion from Nonsuch (Frontispiece) and note how once the attempt at lambrequins was abandoned secular heraldic treatment develops from the straggling panel at Ockwells to this compact and complete form of medallion.











Fig.  
1



Fig.  
2



Fig.  
3



Fig.  
4





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there—notably at Warwick Castle—it does not in its essence appreciably depart from the type above described. There is the centre medallion—armorial or otherwise—surrounded by clear, or relatively clear glass. It must be confessed that our English painters, with their inborn Gothic instinct for heaviness and strength, did not shine at this delicate mode of treatment.

In Switzerland, where the use of enamel was brought to perfection, the central medallions developed into things of exquisite beauty—complete stained-glass windows in miniature, having whole subjects under tiny canopies—marvels of richness and delicacy. This book purports only to deal with English glass, and its proper subject covers so much ground that it must be confessed it does that but briefly and inadequately; but so beautiful are these Swiss panels, so markedly unlike anything else that has ever been done at any time in glass, and so coveted by the collector, that it has been deemed advisable to give some slight description of them in a separate chapter.

All these centrepieces, whether English, French, Swiss or Flemish (all of which were commonly designated “Cinque Cento” by Winston) being designed for secular use, are peculiarly suitable for windows in buildings of the present day, and in consequence are in constant demand by collectors and lovers of old glass. The supply being unequal to the demand forgers of glass have herein found their finest opportunity, and spurious pieces, so cleverly executed that their detection is a matter of great difficulty, are met with every day. Some of them present evidences of their later date, but it is useless to deny that in many cases it is almost impossible to give the collector directions that will enable him to distinguish the true from the false, and when the purchase of such glass is under consideration, an expert opinion should be obtained wherever possible. Some of these forgeries being painted on sixteenth century sheet glass, of which an almost unlimited quantity is easily obtainable, many of the tests applicable to earlier stained-glass are entirely useless.

The collector examining Cinque Cento glass should regard with suspicion anything that appears *too* old. It is a common prac-



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tice among glass-forgers to dirty down their work with a smudged film of matt—an altogether incomprehensible failing, for the sharpness and clear definition of sixteenth-century domestic stained-glass is typical of the period. Therefore, doubt any domestic glass purporting to be Cinque Cento that shows smeared or smudged effects. Then again, outline colour of this period—as indeed in all the preceding styles—no matter how delicately traced, was absolutely and opaquely black. Modern outlines have a tendency to flux in firing, becoming slightly vitrified and showing in places a hint of translucency. Avoid all outline colour that is not firm and positively opaque. Abrasion often presents another evidence. The modern method of removing the flashed side of glass is to do it by means of hydrofluoric acid, producing a smooth effect. Avoid all abraded surfaces that show no traces of grinding or scratches on the glass. This applies more particularly to English work. As has been already remarked, the Swiss painters had a method of their own; but smooth though their work may be, its appearance cannot for a moment be confused with the effect produced by the use of acid. The acid leaves soft curves at the edges that at once suggest the use of a liquid agent: the work of the wheel looks as if it had been cut out with a sharp tool.

The use or abuse of enamel is a valuable test. Our English glass-painters were never very adroit with it, confining themselves almost entirely to blue and the red flesh-pigment. Green and purple enamels, though brought to perfection in Switzerland, were rarely used in England, where as has been already stated the first-named colour is usually produced by a wash of blue enamel on one side of the glass and of yellow-stain on the other. English enamels, moreover, are less durable than those in use upon the Continent. The best of them have a tendency to flake off, showing the white glass underneath. This peculiarity has been seized upon by the forger, who takes the precaution of flaking his enamel in places before firing it; but close examination of the glass will always reveal the cheat. Genuine flaking infallibly leaves the exposed surface of the white glass rough. The enamel, wedded to the glass by the fire, brings off tiny fragments

## THE RENAISSANCE

from its surface in decaying, whilst the intentionally flaked enamel naturally reveals the original smooth surface of the glass. Then again, forgers rarely pay sufficient attention to the history of their handicraft. I have a beautiful little pane, painted with a figure of Our Lady holding the Holy Infant in her arms, which bears Albert Dürer's signature and the date 1515. An exquisite little piece of work, it is so microscopic in its delicacy that it even bears inspection through a strong reading lens, but it is a complete failure as a forgery, for the simple reason that the underskirt of the Virgin is painted in purple enamel. As purple enamel was not in use till after 1550, the date upon the panel is obviously false.

Suspect bad or careless work at once, especially in the matter of inscriptions. Cinque-Cento lettering is invariably executed with care, and in many cases is a thing of real beauty, whilst modern copies are nearly always slovenly in the extreme. Remember that the sixteenth century was a period of great technical skill. Many of the inscriptions of the period are miracles of dainty handiwork, unequalled by the best modern printing—unsurpassed even by the work of the Kelmscott press. But the forger is generally hurried: lettering by hand is a slow business, and he cannot spare the time to reproduce the delicate exactness of the genuine inscriptions, so that his lettering rarely bears comparison with that of the panels he essays to copy.

As to the forgeries of Flemish subject medallions in matt and stain, they are produced in enormous quantities, and of all forgeries are the most difficult to detect. They present only a few points obvious enough for any attempt at description, and where they are concerned the services of an expert should always be obtained. Sometimes, as in other attempts at copying work of the period, the forger betrays himself by an excessive use of shading colour. Avoid all examples which display more matt than is absolutely necessary for the shading of the subject. Bad or undecided drawing is another test: genuine old medallions frequently display stiff or awkward draughtsmanship, but it is never loose or slovenly—at least, not before the middle of the seven-



## A HISTORY OF ENGLISH GLASS-PAINTING

teenth century. As a general rule avoid glass purporting to be of the sixteenth or seventeenth centuries which shows too obviously what are regarded as evidences of age. The sixteenth-century sheet glass used for these plaques was an excellent material, and very few of the medallions show any traces of corrosion. The outlines on the contrary have a slight tendency in certain cases to flake off from the glass, something as blue enamel will do, and medallions showing strange whitish outlines may as a rule be set down as genuine. It should be carefully noted, however, whether the glass left showing where the outlines have perished has a rough or a smooth surface. If it is clear and smooth, reject the panel altogether, as outline colour—again like blue enamel—can very easily be damaged before firing, thus giving a meretricious appearance of antiquity.

To recapitulate, then, the principal characteristics of sixteenth-century glass may be summed up as follows.

The large subject windows present :—

- (a) The new Renaissance style, often with large pictorially treated subjects extending through the mullions and tracery stonework : great variations in design, according to the painter's individuality ; efforts after pictorial effect in figure compositions ; much better draughtsmanship, occasionally running counter to the hard and fast conditions of glass designing (see remarks on the halo, above), and the occurrence of Classic—or pseudo Classic—features in such purely ornamental details as canopies, bases and architecture.
- (b) Thinner and smoother glass, approximating in weight and texture to common modern 15 or 21 ounce sheet—though never as pure a white in colour.
- (c) Far heavier painting than in any of the Gothic styles. Matt laid and stippled dry in a level coat, from which the lights were afterwards wiped out with a stiff hog-hair "scrub."
- (d) The use of outline colour to represent black.

## PLATE XV

### SIXTEENTH-CENTURY BADGES

Fig. 1. Quarry in white and stain. Circa 1520. Badges of Dacre—escallop shell and staff raguly interwoven with a knotted cord.

Fig. 2. From Mr Radford's Collection. Circa 1530. Badge, in white and stain, of Jane Seymour. The gilly flowers and crown in bush or shrub over castle doorway are unusual.

Fig. 3. From Waterbeach Church, Cambs. Circa 1520. Quarry with badge in white and stain—two conventional fish, headless and gutted, fastened together with a twisted cord.







PLATE XV

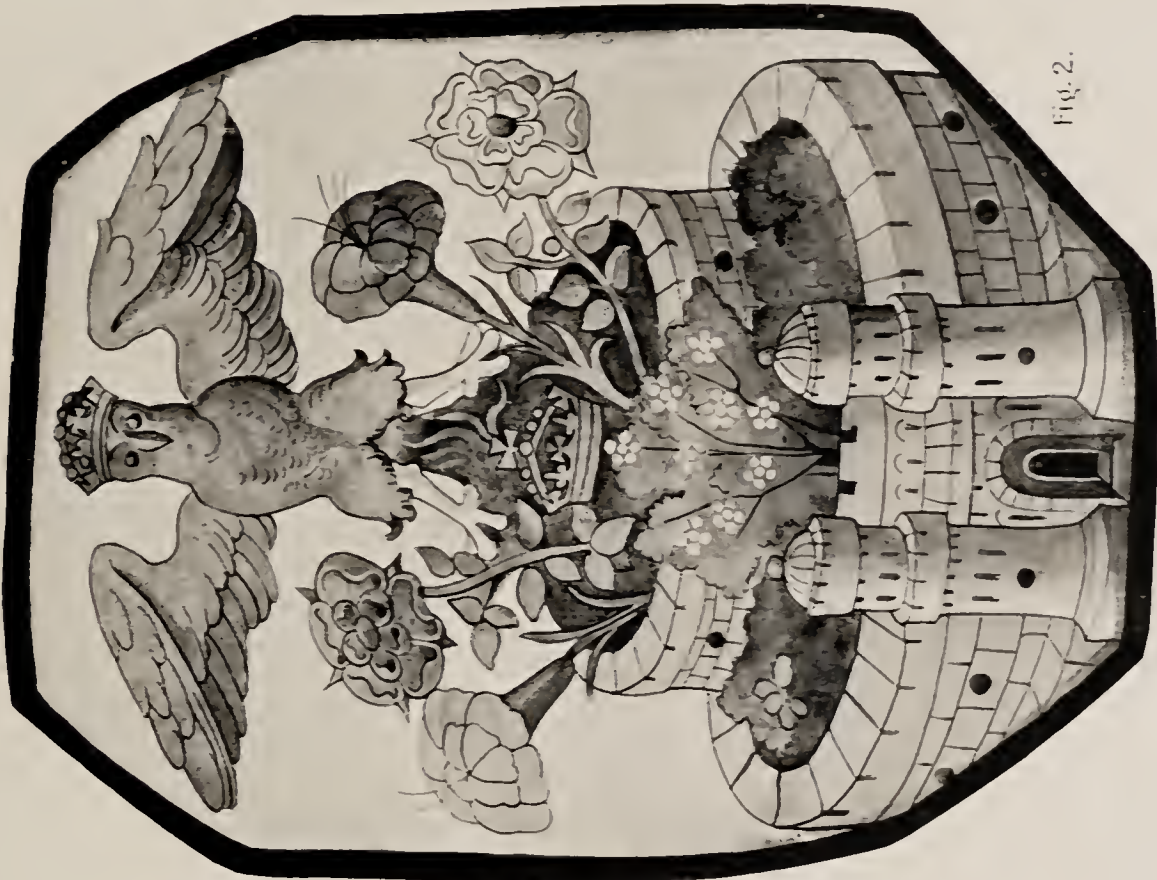


Fig. 2.



Fig. 1.



Fig. 3.





## THE RENAISSANCE

- (e) Naturalistic backgrounds: either landscape or architecture, or a combination of both.
- (f) The first appearance of enamel colour, and the first employment of the diamond and "lead vice."
- (g) A great increase in the practices of abrasion, insertion and annealing.
- (h) The first deliberately schemed attempts by means of methods (c) (f) and (g) above to conceal or avoid the use of lead lines.

The smaller domestic windows are distinguished by (b) (d) (f) and (g) in above list, by the prevalence of the type of design described above—a central medallion surrounded by clear glazing, either plain or geometrically planned—and by a delicacy of execution altogether new and remarkable.





## CHAPTER V. DECADENCE.

The seventeenth century—Poor materials—Glass under the Stuarts—Later tendencies—Glazing—Classic details and slovenly execution—St Eustache and St Sulpice—Abbott's Hospital, Guildford—The Civil war—Oxford and the Van Linges—Wadham College—The Cathedral—University College—Magdalen—Lincoln's Inn—Secular glass—The quality of later enamels—Heraldry—The Jacobean revival of Gothic—Seventeenth-century quarries—Glass sundials—Inscriptions—Detailed characteristics of seventeenth-century glass.

The eighteenth century and its poor work—The "secrets" of glass painting never lost in England—Prominent eighteenth-century glass-painters—Sir Joshua Reynolds, Mortimer and West—Peckitt, Edgington, Price, Pearson and Jarvis—English work in France—Detailed characteristics of eighteenth-century glass.

The Pugin revival in the nineteenth century—Winston and materials—The Exhibition of 1851.

IT might reasonably be expected that a far greater number of sixteenth- and seventeenth-century windows would have come down to us than windows of an earlier date. Stained glass was never more popular than during the sixteenth century, and it would seem that the shorter time which has elapsed since its execution, as compared with the five centuries and a half since the Decorated period—another prosperous time for glass-painters—would greatly favour the preservation of the later work.

As a matter of fact, the exact converse obtains. This in great part is due to the thinness and fragility of Renaissance windows, as compared with the heavy leading, thick glass and clumsy workmanship of the fourteenth century. Despite two hundred years of added wear and tear, exposure to weather, and the risk of accident before the later windows were made, far more fourteenth-century glass remains to us than glass of the Renaissance. Of the enormous number of windows painted in the sixteenth century in England a vast majority have been altogether destroyed.

Several agents co-operated in this wholesale destruction. The glass, being thin, was liable to breakage. It was made from bad materials, too, as has already been remarked, and its alkaline con-



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stituents crumbled with almost every change of temperature. The diamond was a great improvement on the grooving iron, without a doubt, but the smooth edges of panes cut by its means did not grip the leads as the tiny chipped edges left by the grooving iron had done, and this again resulted in some slight additional weakness. Then again, the leads themselves, squeezed thin by the lead vice, lacked the stiffness of the old cast calmes, and gave little or no support to the panes held between their fragile flanges. Saddle-bars, interfering with pictorial effects, were reduced in number and thickness, and thus more valuable support was removed. Delicacy, thinness, and fragility more and more take the place of sturdiness, and combined with the most brittle of materials offered little promise of durability.

The opening of the seventeenth century, in short, finds English glass in the full tide of decadence. Nearly everything that made for good stained-glass was being neglected and forgotten : every fault that glass could have was paraded like a virtue. Transparency and translucency—without which glass has no reason for existence—had both disappeared, windows being loaded everywhere with heavy coats of paint intended to conceal the lead-lines. By the middle of the seventeenth century the stained-glass window was a thing almost beneath contempt. All the canons of glass-painting were forgotten. The giants of the Renaissance had laughed at the simple rules bequeathed them by their forefathers, but being giants they achieved successes, even so—successes beyond the reach of ordinary men. It were flattery to call the Stuart glass-painter an ordinary man—he was a cynical shirker in an age of shirking cynicism. In his slovenly way he tried to follow in the footsteps of his Renaissance predecessors—if they could disregard rules, so could he—and in less than fifty years he had brought the labours of five centuries to naught. He forgot that he had ever been a glazier at all ; forgot the First Law, the Law of the Lead-lines ; forgot that all his liberty was held under that law. Fancying himself a painter of pictures he kicked himself free of his leaden shackles and toppled his paltry self and his ancient and honourable craft and mystery in the dust.

## DECADENCE

Despite the beauties of sixteenth-century glass, it had contained the seeds of decadence. It was well enough for strong men here and there to break rules, but when weaker followers essayed to pass in their footsteps through the gaps they had broken in this convention or in that, flat failure resulted. But plenty of such daring weaklings were ready to make the attempt, and at the opening of the seventeenth century we find English stained-glass well started on the downward road. The effort after pictorial effect was at the bottom of the mischief. The earlier Renaissance glass-painters, masters of their craft, and to a certain extent held back by the Gothic traditions in which they had been trained, had gone as near the picture as men could go ; but their followers, less skilled, ignorant of restraint, and trained in a new school to scorn the Gothic styles which had given birth to their handicraft, dashed in where their betters had almost feared to tread, and made of the stained-glass window a mere derision.

To begin with the lead-lines—the seventeenth-century painter would have none of them. They hampered him. To paint figures with a quarter-inch black line around each patch of colour! He kicked against that heavy harness, that net encompassing his work, until he broke it, and through the breaches that he made slipped one by one the beauties it had held four hundred years. All the strong virtues departed ; powerful, restrained draughtsmanship and the full glowing colour that was the very *raison d'être* of stained-glass. He glazed his windows in larger panes, introducing his colour with enamel or abrasion, sometimes cleverly enough, it is true, but the best he could do had only the merits of aquarelles upon transparent paper. The deep strong glories of stained-glass were dead and gone.

At the very outset the glass he had commanded was so smooth and clear and fine that the lead-lines stood out against it blacker and more opaque than ever. He made them thinner, thus weakening his windows. He painted heavier and heavier shadows on his glass, lightening them cunningly towards the centre of each pane, but leaving them heavy and sombre at the edges in the endeavour to prevent the sharp contrast between the dense black lead-lines



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and the enhanced transparency of the glass they contained. Darker and darker the shadows grew. No half-hearted attempts at semi-translucency could vie with the absolute opacity of lead. Darker and darker, ever invading a greater surface of the glass, until in some sort they did indeed render it difficult to follow the lead-lines. Then—*Quem Deus vult perdere, prius dementat*. Elated with that much of poor success the glass-painter went utterly mad. He had succeeded in concealing the lead-lines, therefore it no longer mattered where they occurred. Why trouble to scheme them, hither and thither, according to the design? Since enamel painting could supply colour where necessary, what further need to incur the labour of cutting pot-metal glass into difficult shapes? Away with the glazier's craft—that barbarous survival of Gothic days! No further attempt was made to persuade the lead-lines to follow even approximately the outlines of the design, and windows were leaded up in rectangular panes of glass, all of a size, the painter trusting to the heaviness of his shadows to conceal the fact that his picture—for it was no longer a window in any sense of the term—was pervaded by a straight-lined grille, and that the figures it contained were seen as it were through the bars of a cage.

In many cases he actually did succeed in concealing these arbitrary straight lines. To give only one instance, in the series of windows in the south choir chapel of St. Gudule at Brussels the subjects can readily be identified despite their rectilinear grille. The painting is so heavy that the criss-cross lead-lines do not unduly stare. This in a window, mark you—an opening to admit light. It certainly shows some lingering traces of a conscience on the painter's part that he should recognize it as his duty to conceal the glazier's incompetence, even though in so doing he displayed his own ignorance of what a window should be. The result is not glass at all. It is not transparent; it does not admit light; and the design it was intended to display only shows faintly luminous when the sun shines directly upon it. At all other times the windows might almost as well have been filled with wooden shutters.

## DECADENCE

As the workmanship, so was the design—beneath contempt. Attempts at pictorial effects are of course still universal, but that is the only feature common to windows of the period. Gothic details were held in abhorrence, and the favourite procedure was to steal the figures directly from the works of the great masters. The draperies from Raphael's celebrated cartoons thus figure over and over again, and where the designer trusted to his own draughtsmanship he went astray most woefully. The windows of the day are full of architecture; great spaces filled with uninteresting classic façades, glazed up in the inevitable square panes and loaded with paint. Upon such a background one or two figures stand isolated and alone, and where the painter, wearying of the eternal wall and arch, pediment and column, broke out in search of novelty, the result is such that one can only regret the attempt. The two examples from the Parisian churches of St Eustache and St Sulpice on Plate XXVIII illustrate the utter poverty of rule and exception alike. Than the latter, lazy cynicism can scarcely go further. It is almost as though the rascal of a designer—one Le Clerc by name—sneers as he pokes his sloven rubbish in one's face.

During the Stuart period an attempt was made in England at a revival of Gothic architecture, and the movement may have had some effect in retarding our native glass-painters upon their downward path. The windows in Archbishop Abbott's Hospital at Guildford, which date from about 1620, provide an illustration of this. Enamel colour is used profusely, especially in the backgrounds and accessories to the subjects, and naturally much of it has perished, to the great injury of the colour scheme; but it does not altogether usurp the place of pot-metals. These, though meagre and thin in tone, are used with discretion and some skill, and despite their poor quality compare very favourably with the patchy and impermanent enamels beside them. The drawing of these windows is generally strong and good, though there are marked exceptions in some of the heads and figures. The composition is restrained, strongly reminiscent of some of the best work of the preceding century. The heraldic arrangement of the tracery—the stonework of which is an excellent example of the revival—might have



## A HISTORY OF ENGLISH GLASS-PAINTING

been executed by an artist of the Tudor days instead of the debased period of the Stuarts. There is no attempt to evade the necessity for saddle bars, and the lead-lines, though infrequent, are in their right places and do their duty by paying allegiance to the design. That these windows were painted within ten years of the poverty-stricken work at St Eustache says much for the training of our craftsmen. The explanation may be that Gothic work was native to England, and our glass-painters at their worst never quite forgot the fact. Gothic feeling was too obstinately in their blood, or they were too stupid to learn new ways. Try as they would to be Palladian, or Classic, or what not, their fingers cheated them, reverting to Gothic details or Gothic tricks of workmanship again and again, saving them from the perpetration of such hopeless trash as was being turned out everywhere upon the Continent.

Scraps of the period are fairly common, but, owing to the causes already enumerated, very few complete windows remain in England. No doubt the Civil War had much to do with lessening the output of glass, and one can easily imagine that the Puritan Commissioners, infamous for the havoc they wreaked upon stained-glass everywhere throughout the country, would take a special delight in destroying any recent windows that could be attributed to members of the Royalist party.

Of the few examples remaining a good many are at Oxford, and although the east window of Wadham Chapel and some others in the Cathedral are by Flemings settled in England they do not noticeably depart from the English type. The Wadham glass dates from 1622, and is good work of its period, in spite of its lacking the distinctly Gothic feeling of the Guildford windows. Enamel of course is used to a very great extent, but pot-metals are not altogether neglected where any large masses of colour permitted their use without giving the glazier undue exertion. The drawing, however, is poor and the shading colour has the same defect as the coloured enamels—a lack of durability.

The side windows, earlier by eighteen years and probably painted by English workmen, are immeasurably superior, especially the figures of Apostles. In this series pot-metal is almost entirely

## DECADENCE

used instead of enamels—a remarkable feature, considering the date of execution.

The west window of the north aisle in the Cathedral is by one of the Flemings, Van Linge by name. Comparison with the series of Apostles at Wadham reveals at once the inferiority of the enamel method, which here is used to excess. Five years later (1635) the same painter executed a series for Queen's College Chapel, and two years later again another series for Balliol. Eight windows by his hand remain in very good condition in University College Chapel. They were erected about 1640, and it is easy to trace through this one man's work in successive years the gradual disuse of pot-metal and its substitution by enamels. The result is that the later the windows the poorer the colouring, and the worse the state of preservation.

The series of saints—most unusual ones, for the most part—which occupy the windows of the ante-chapel at Magdalen College are English work. They were executed by one Richard Greenbury, and compare very favourably with the poor eighteenth-century work occupying the remaining windows in the building. The east window of University College Chapel is also English work, having been painted by Henry Gyles, of York, in 1687. It has the merits and fault common to all the other windows mentioned: the pot-metals are good of their kind, but the enamels so decayed as to have almost entirely disappeared.

Lastly, in Lincoln Chapel, there are a series of nine windows, all of good character and all possessing marked Gothic peculiarities. Their origin is obscure. They have been attributed by some to Italian workmen, by others to the Van Linges, and there exists a further tradition that they were imported from the Low Countries. Mr. Westlake, however, points out that they share many important features with the Abbott's Hospital glass at Guildford, and cites further evidences which go far to justify him in the assumption that they are by the same hand.

There were two Van Linges, Abraham and Bernard. The Oxford windows enumerated above—with the exception of the east window at Wadham Chapel, which is the work of Bernard



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Van Linge—are all by the first named. Bernard's work appears to be slightly the earlier in date, and there are one or two windows in Lincoln's Inn Chapel, London, which seem to be from his hand. They may be easily recognized by their superiority over the other windows in the chapel, some of which are merely wretched copies of figures by Old Masters. The backgrounds are thought by Mr Westlake to bear some resemblance to the Guildford windows, and he consequently assumes that these, together with the glass in Lincoln Chapel at Oxford, are all to be ascribed to the same hand. It seems, however, almost impossible that the diffuse composition and poor drawing of the east window at Wadham, which is certainly the work of Bernard Van Linge—the contract being still in existence—can have been executed by the same man within twelve months of the far superior east window in the chapel at Guildford.

Though the continental painters of large windows were going downhill as fast as bad material, bad taste, and bad workmanship could carry them, they were still actually improving in the execution of secular work on a small scale. Whether French or Swiss, German or Flemish, their little seventeenth-century medallions are better than ever. Beautiful as were the Cupid and Psyche series of windows at Chantilly, their delicacy was marred by the lead-lines, and the later painters, now masters of enamel, were quick to perceive this, their one defect. Whilst their contempt for lead-lines took them hopelessly astray where large windows were concerned, they were perfectly within their rights in avoiding them in small panels, and by the adroit use of enamels and abrasion they made their lesser works things of delicate and exquisite beauty. In England, however, the converse obtained. Our glass-painters were never altogether happy in domestic work, never specially skilled in the use of enamels, and it must be confessed that though their larger windows retained some dignity long after the continental artists had forgotten the meaning of the word, their domestic work—even the heraldic pieces in which they had hitherto excelled—were immeasurably inferior. The English Tudor heraldic medallion showed heraldry at its best,

# PLATE XVI HERALDIC AND ABRADED DETAILS



This panel is made up of fragments from a private collection.

Fig. 1. Portion of the collar of an amice. Circa 1520. Pattern abraded out of green flashed glass, the larger circles being painted with an inner ring of outline colour. A very fine example.

Fig. 2. Portion of the arms of France. Circa 1500. Fleurs-de-lys abraded out from blue flashed glass, outlined and stained yellow.

Fig. 3. Portion of a coat of arms. Circa 1470. *Barry wavy gules and argent*, the white bars being abraded from a sheet of ruby and then outlined.

Fig. 4. An heraldic fragment. Circa 1360. A fleur-de-lys on white glass, stained yellow, from the arms of France.

Fig. 5. From the same window as fig. 4. A lion rampant on white glass, stained yellow, outlines badly decayed.

Fig. 6. An heraldic quarry, painted with the crest of Rowe of Lamerton—a paschal lamb. This pane is a forgery, modern paint on fifteenth-century glass. The outlines have been scratched all over to give them an appearance of decay, and the later firing has given the line of deposit adjoining the original leadlines a marked reddish tone, probably due to the presence of oxide of iron.

Fig. 7. An heraldic fragment. Circa 1390. An eagle displayed on white glass, stained yellow.

Fig. 8. An heraldic fragment. Dutch. Circa 1640. Portion of a lion rampant on background of clear yellow stain. Note vigour of pose and delicate modelling of leg.

Fig. 9. An eighteenth-century shield. Circa 1760. By R. S. Godfrey. Arms of De la Pole. Note flaking of blue enamel background, and faded outlines of lion and fleurs-de-lys. The red enamel on "the bloody hand of Ulster" has also faded to a faint shade. A very typical example of the more obvious demerits of eighteenth-century glass.

Fig. 10. A mark of cadency. Circa 1420. A crescent painted on white glass. Outlines much decayed.

Fig. 11. Two ermine tails. Circa 1420. Note stitches by which the tails were attached to white fur, and compare with simpler examples on Plate xi, fig. 1. These stitches in later examples become three separate dots, one above and one on either side the upper portion of the tail.

Fig. 12. A modern forgery. French. Copy of a portion of an early sixteenth-century cartouche. Note the outlines rubbed to imitate faded outline colour.

Fig. 13. Hand holding a *guige* or backstrap of a shield. Circa 1440.

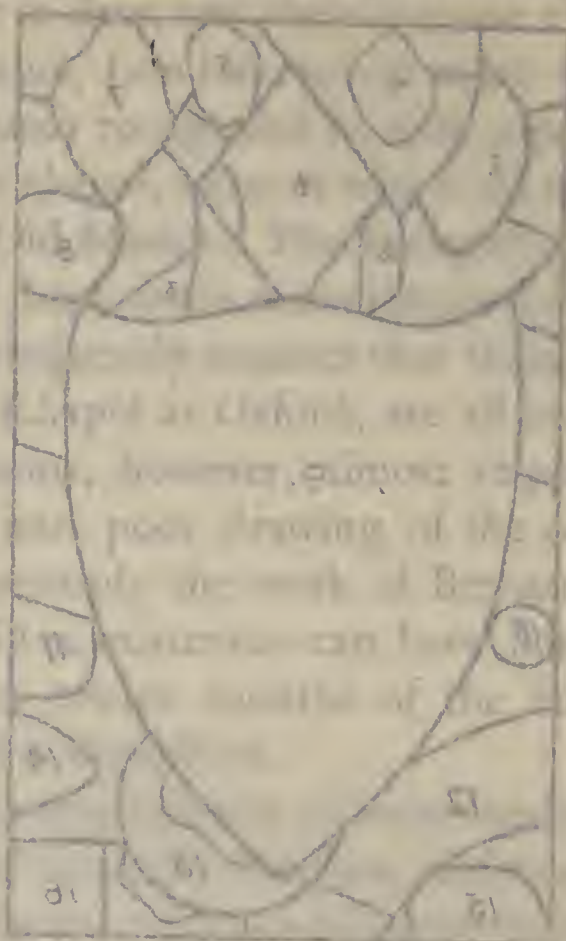
Fig. 14. Portion of a Stuart mantling, from an heraldic medallion. Poorly drawn outlines and heavy matt, with portion of stained margin and opaque red enamel turn-over to mantling.

Fig. 15. Lion from the arms of England. Circa 1380. Painted on greenish white glass, stained yellow.

Fig. 16. Portion of heraldic diaper from the apparelling of an alb. Circa 1340. An eagle displayed with surrounding pattern scratched out of a level coat of dead-black outline colour.



HERALDIC AND ARADETO BETALIA



The following is a list of the names of the sections of the shield, as given in the original text. The names are written in a script that is difficult to read, but they appear to be names of places or regions. The list is as follows:

1. The name of the top left section.
2. The name of the top center section.
3. The name of the top right section.
4. The name of the middle left section.
5. The name of the middle center section.
6. The name of the middle right section.
7. The name of the bottom left section.
8. The name of the bottom center section.
9. The name of the bottom right section.
10. The name of the far left section.
11. The name of the far right section.
12. The name of the bottom left corner section.
13. The name of the bottom center section.
14. The name of the bottom right section.
15. The name of the bottom center section.









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but the Jacobean examples are generally wretched things. Their colour is so exceptionally bad that it would seem the English glass makers had entirely forgotten how to make pot-metals, and the native enamels being of the poorest, the effects achieved are altogether lamentable. Here and there, however, some pretty trivial things were done, such as the Carolean portraits within their appropriate framework on Plate XII, figs. 4 and 5.

The favourite domestic design of the sixteenth century—plain or patterned glazing with central shields or medallions—remains unaltered, but the execution of these central features falls away terribly. The blue enamel used was thin and poor—rather a steel-grey than a blue. Abrasion was almost forgotten and is very rarely found, passages of red being now produced by means of strong stain, floated on heavily and fired to a transparent brownish red. A few attempts were made at pink and purple enamelling, traces of which are occasionally found, as these two colours, though muddy and poor and consequently not much used, appear to possess a greater degree of durability than any other English enamels. They would probably have been more in favour but that neither of them happens to occur in heraldry, except for the rarely used tincture known as purpure.

The favourite armorial shape is an oval, with the shield in its centre surrounded by a frame of painted scroll work. Though our painters clung to Gothic features to the last, wherever large windows gave them room, no traces of the older feeling appear in these small medallions. They are Classic, or rather rococo, throughout, and their poor colour, the debased character of their design, and above all the almost inevitable “float” stain will enable the collector to identify them at sight.

The Gothic revival of the seventeenth century has bequeathed us one pretty and interesting feature in the resuscitation of the painted quarry. Herein it would seem that our painters were more at home than in the cartouches and medallions, for they fairly revelled in the pretty trifles. The variety of patterns is enormous, and nearly all are of value, being well executed and of great interest. The fifteenth-century quarry was quaint enough, but one



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inclines to weary of its more conventional examples. No such weariness is possible with the seventeenth-century quarry, for repetition is rare and the designs are more delicately executed and far more elaborate than in the earlier Gothic examples.

Armorial bearings and badges occur most frequently, and show a high degree of merit, both in design and execution. Sometimes a whole coat-of-arms is painted on one quarry (Plate XII, fig. 2), but more frequently the crest alone is displayed (Plate XII, figs. 7 and 8) or the crest and motto intertwined. Badges and inscriptions are common; ciphers, monograms or names in full, neatly written on scrolls or cartouches and surrounded by strapwork, acanthus tendrils, or other Renaissance framework. Other examples are given on the same plate. Owing to their small scale it was advisable that the colour employed should be pale and delicate, and the weak and inferior tints of the English enamels proved exactly what was required.

Another new feature, peculiar to the period but unfortunately of rare occurrence, is the sundial. The glass, oblong or oval in shape, was drilled with holes through which the gnomon was fastened in place, and that portion of the glass painted with the lines denoting the hours was backed with a coat of white obscuring pigment (technically known as "white matt") upon which semi-opacity the shadow of the gnomon was rendered more easily perceptible than upon the clear glass around it. This same white matt, it may be mentioned in passing, appears for the first time late in the sixteenth century, and was commonly used for backing plaques, scrolls and cartouches with inscriptions, to render them more legible by counteracting that expansion of light rays which produces an effect similar to that which photographers of the present day know as "halation."

The sundials are valuable owing to their rarity, to which perhaps the strain of the gnomon upon their glass may have been a contributory cause. Sometimes they bear coats-of-arms or monograms; more frequently mottoes alluding to the flight of time or to their purpose of recording it, these being occasionally

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helped out by some punning device, attaching a double meaning to the inscription, as in the example given on Plate XXVI.

In England, the lettering of inscriptions changed from Gothic black letter to a Roman type, as a rule in capital letters throughout, though towards the latter end of the century small text begins to come more into favour. Where a combination of the two is used, small letters here and there in the body of the text may be elevated to the rank of capitals in order to convey some message distinct from the literal sense of the inscription. Dates, for instance, are sometimes indicated in this way, as in Plate XVII, fig. 1, where it will be noted that all the capital letters in the upper part of the inscription are Roman numerals, which, added together, give the date.

With the inscriptions on English glass as with the rest of native secular work a great falling off in quality is noticeable. They have neither the delicacy nor the accurate setting-out and alignment of the earlier examples, though this applies more particularly to glass executed after the Restoration and does not apply to continental glass at all. The inscriptions on Swiss glass, even as late as the first quarter of the eighteenth century, are as good as ever, and the Swiss glass-painters, conscious of the superior decorative value of Gothic lettering, held to it, executing it daintily and well for a full century after it had fallen into complete disuse in England.

The general characteristics of seventeenth-century church windows in England greatly resemble those of the sixteenth—at least so far as design is concerned. But in technique there are many minor differences, all bearing unmistakable witness to the decadence into which the handicraft had fallen.

- (a) The glass is thin, like modern fifteen-ounce sheet, from which it can only be distinguished by a few “reams” or streaks on the surface, and by the colour of the white, which is still a faint green or yellowish horn-colour. Pot-metals are pale and poor, and it may be noted that they are generally crown glass, whilst the white was



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almost invariably produced by the "muff" process. This may be due to the fact that much of the coloured glass was imported, whilst white glass, of better quality than the foreign product, could be made at home. The glass of the latter half of the century is much better in quality and far more durable, and less liable to corrosion than that produced fifty years earlier. It would seem that as the glass-painter's work deteriorated, so the glass-maker improved.

- (b) No characteristics of design are altogether peculiar to this period. All the wide variations of the sixteenth century seem to have found followers, and the result is chaotic. There is, however, a more marked tendency to do without the canopy—a tendency carried to greater extremes than in the earlier years of the Renaissance. Bases, on the contrary, seem to come rather more into favour, perhaps to provide a space and some framework for the inscriptions. They also lift the subjects or figures above the sill and more into the centre of the window, which was probably the most weighty reason for their retention. Shaftings vanish altogether, the infrequent canopies being carried on corbels jutting out from the sides of the lights.
- (c) The treatment of figures is unmistakable, and the common employment of copies from the works of the Old Masters indicates the sort of thing in favour. No trace of Gothic austerity remains; the thin-featured ascetic saints of the fifteenth century, and their more florid but excellently drawn and vigorous successors of the first Renaissance, have given way to clumsy figures, heavily draped, heavily fleshed, heavily drawn and heavily painted—meaty butchers and blowsy washerwomen all. As drawings of men and women they are merely comic—Rowlandson and Gilray might have laid claim to many of them—but where they are intended to represent Divinity they fall little short of blasphemous. The

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Düreresque drapery folds of the sixteenth century have become exaggerated into things like German sausages, and the figures they clothe are only worthy of their habiliments.

- (d) The prevalence of enamels over pot-colour has already been mentioned. The enamel colours were either poor in manufacture or were not calculated to resist our climate, and in the great majority of cases have flaked badly. A pale grey-blue prevails, then a full dark blue, then pink and purple. Green is never used, this colour still being produced, as in the preceding century, by blue enamel on one side of the glass and yellow stain on the other. The matt has now such a colour quality that it may be classed as an enamel also. As a matter of fact, it is a true enamel, though as it was never employed for the purpose of producing local colour, but only for shading purposes, and as it rarely suffered from the drawbacks to which other enamels are liable, it is less confusing not to insist upon the fact. Hitherto a cool, inconspicuous grey (the French name for it is "grisaille," another confusing use of the term) it developed in the seventeenth century into a foxy brown, almost as marked in colour as the flesh enamels of the preceding century, and to the full as subject to decay. Painted heavily, stippled with a coarse brush, and now often hanging off the glass in ugly patches, it is largely responsible for the bad name and shabby appearance of the windows of the period. The outline colour, on the other hand, is still good, being black and permanent, but it is not employed to the same extent as formerly.

As has been stated, secular glass on a small scale was fairly common. In design it presents all the features of the latter half of the sixteenth century, almost unchanged save for the final and absolute disappearance of the very few Gothic features that remained in such glass. In execution, however, it is materially



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different. Abrasion disappears altogether, save in a very few sporadic instances, and enamel takes its place. Insertion and annealing have also gone, as might be expected of any process requiring pains in such a slovenly period. Enamels do all the work of colouring, aided by yellow-stain and the red or deep orange "float" stain, which latter is characteristic of a period of decadence. It commonly occurs in a plain strip serving as a border around oval heraldic cartouches. Shield mantlings are rare, the coats-of-arms being generally placed upon cartouches or surrounded by festoons, elementary architectural features, or strapwork, but where they do occur they rarely partake, as they should do, of the tinctures of the shield. The simplest possible outlining, helped out by matt shadows, was considered sufficient for them, but as even the shields themselves were often tintured incorrectly where any trouble could be saved thereby there is nothing in this minor slovenliness to excite remark.

Other characteristic features of secular glass of the period are the heraldic quarry and the Roman lettering of inscriptions, both of which have already received notice.

To sum up, English stained-glass under the Stuarts was poor in every way, degraded in design, florid and debased in drawing, and wretched in technique and workmanship. It was worse than anything that had been done since first the handicraft was born, and despite the few redeeming features in windows of English manufacture it was very nearly as bad as it possibly could be.

Very nearly as bad. Not quite. Upon the Continent large windows were even worse, and it was left for the eighteenth century to show to what depths of degradation English glass could fall, and to demonstrate what rubbish our glass-painters could turn out once they were assured of a good solid backing of ignorance and bad taste on the part of their employers to aid their own ineptitude. The eighteenth century from an artistic point of view was a slough of despond, and its stained-glass was the worst thing it produced. So bad was it, indeed, that one would hesitate to mention it at all—would prefer to write *Finis* across the page at the time of the Restoration—were it not for the startling fact that

## PLATE XVII

### EARLY EIGHTEENTH-CENTURY HERALDIC PANELS

Fig. 1. From Mr Bell's Collection. German. The capital letters in the first two lines of the inscription form a chronogram, and added together as Roman numerals give the date of the panel. The mantling, the rather shapeless plaque for inscription, and the weak leafage behind it, are all decadent.

Fig. 2. Late and very degraded Swiss work. No potcolour or abrasion. Dated 1702. There are only six panes of glass in the whole panel, divided by leadlines that stare badly. Figures poorly drawn and inconspicuous. Shield and inscription also poor, but unduly prominent. The mantling is especially bad. The diaper of wavy outlines above and beside it is copied from an earlier example.

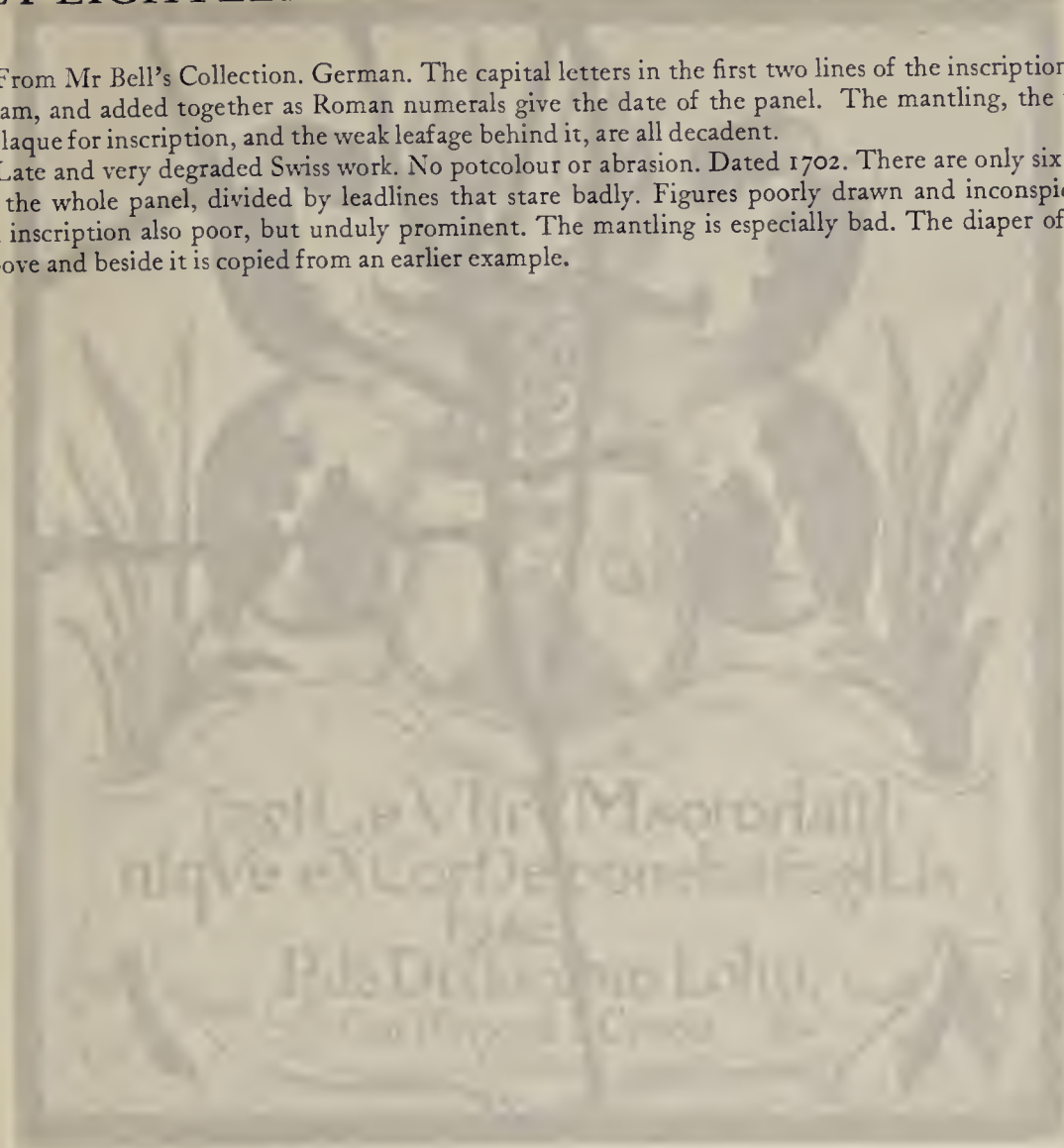








PLATE XVII



Fig. 1



Fig. 2





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even so the continental painter still managed to achieve something inferior. If the English glass-painters were turning out trash, they yet were doing *something*, keeping their kilns alight, and making some poor lingering attempts to stimulate a languid interest in their handicraft, whereas in France it was dead, and almost beyond recall. The Revolution dealt the final blow. One or two painters had kept themselves alive till then by painting heraldic medallions—surely of all occupations the most hopeless with the owners of the arms in full flight for English shores. In 1787 one of the last of the French glass-painters gave it as his opinion that: “This art is so fallen into desuetude that the generally received opinion is that the secret of glass-painting is lost.”

Olivier Merson, in his fine work, *Les Vitraux*, pays tribute to our painters of the eighteenth century, wretched though their work undoubtedly was. “To our neighbours across the Channel,” says he, “belongs a great share of the merit of having preserved several of the traditions of glass-painting upon a large scale. This is past denial or evasion.”

Three names of English glass-painters of the eighteenth century stand out beyond all others. Francis Eginton—or Edgington—of Birmingham, William Price, of London, and William Peckitt, of York, executed several important windows throughout the country, some of which show a feeling after the true light which entitles them to escape the general condemnation due to eighteenth-century glass as a whole.

Price, who died in 1765, was himself the son of a glass-painter of the same name. A window by the father is still in existence in Merton College Chapel, and the son did some work for the Chapel of Magdalen College at Oxford, which has already been mentioned as bearing no comparison with the windows in the same building executed by Richard Greenbury a century earlier. The eighteenth century windows on the south side of New College Chapel are by Peckitt, as was also the great west window of Exeter Cathedral, removed to make room for the Temple Memorial in 1904. He further restored the fine east window at Exeter (Plate III), destroying Decorated borders and supplying



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their place with Greek frets leaded up in vivid multicoloured sheet glass! This was in 1765, the year of Price's death. There are some more windows by Peckitt on the north side of New College Chapel, at Oxford, bearing dates from 1765 to 1774. In 1764 Eginton restored the Last Judgment window at Magdalen College and painted a series of windows in the ante-chapel. The east window of the lady chapel at Salisbury is his work—but it is a wretched thing, despite the fact that the design was by Sir Joshua Reynolds—whilst other windows were executed by him in All Souls College Chapel and at Windsor. The window designed by Sir Joshua Reynolds for New College Chapel was painted by one Jervais—or Jarvais—in the year 1777. Another placed in the east end of the chapel of Brazenose College a year earlier is by Pearson, after designs by Mortimer, and the same designer and painter were responsible for the high east window of the choir at Salisbury. This window compares very favourably with the Reynolds-Eginton Resurrection in the lady chapel, principally on account of the employment of pot-metal instead of the usual eighteenth-century enamels. The east window of St George's Chapel at Windsor, designed by West, was also painted by one Jarvis, aided by a pupil named Forest.

Some windows at Doncaster, painted about the end of the century by J. H. Miller, frankly avowed themselves as imitations of the style of the sixteenth century, though the poverty of the material went far to frustrate the painter's attempt. Windows dating from the beginning of the century to the year 1740 occur in St Andrew's Church, Holborn, and are not by any means to be despised, considering the age in which they were painted.

On the Continent English glass-painters were held in esteem, which would seem to provide another evidence of the superiority of their work. Robert Godfrey, who was formerly a pupil of Peckitt's, and William Brice both worked in Paris as master glaziers, the latter executing some important repairs to windows in Notre Dame and Ste Chapelle. Some work of Godfrey's, executed in imitation of early glass, was praised by the *Mercure de France* of July 1769 as good both in colouring and design. It

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may be remarked that his work under Peckitt in the restoration of the east window at Exeter does not betray any superlative qualities of excellence.

As might be expected, stained-glass by now betrayed no traces whatever of its Gothic origin, so far as technique and workmanship are concerned. The fashion set in Holland in the seventeenth century, of painting in enamels upon sheet glass glazed up in square panes was followed everywhere almost without exception. It was as much as the painter would do to refrain from taking a lead-line across a face. More concessions than that to his design he flatly refused to yield. A single exception to this rule has been cited at Doncaster; and the old west window at Exeter, though painted on panes as rigidly rectangular as could be desired, provided another startling departure from the predominant style of design. The figures of saints occupying its seven inner lights were ranged under yellow stained ogival canopies, florid, ornately finialled and crocketed, but unmistakably Gothic in origin. The same canopied treatment occurs in Sir Joshua Reynolds's window at New College, Oxford, where the figures of Virtues also stand under pseudo-Gothic canopies (Plate XXXIII, fig. 6), but elsewhere the treatment is universally pictorial, even the seventeenth-century bases having fallen into disfavour, and the subject extended from mullion to mullion without as much as a narrow line of unpainted glass to separate it from the stonework.

White sheet glass and enamel colourings are exclusively employed, and where pot-metals do occur they are even thinner and paler than they were in the preceding century, ruby excepted. Some of this glass tends to become streaky and irregular in surface and texture, throwing back, as it were, to the ruby of the early fourteenth century. Very often it is difficult to distinguish between the two, the more so as the later glass resembles the earlier in colour no less than in its faulty manufacture, having more than a hint of brown in its deeper shades. But, pot-metals apart—and owing to their infrequency we may disregard them almost as readily as did the Georgian glass-painter—enamel painting, done pictorially on white glass, was the be-all and end-



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all of his methods. The enamels were handled adroitly enough, as might fairly be expected, considering they monopolized the painter's attention, but apart from their use the general workmanship was execrable. Leads, though wider in the flange, were narrower in the heart, the thin glass in use permitting this economy. Both flanges and heart are reduced to a minimum of thickness, and the glazing in consequence often yields to a push like stretched parchment. Yellow stain is used in profusion in every conceivable shade from brown ruby to pale lemon yellow. Hydrofluoric acid for abrasion came into use some time before 1745 and with the new facility it gave, the practice henceforth becomes more common even than in the sixteenth century. The matt is less foxy in tone and was sometimes helped out by the use of the tracer—another reversion to sixteenth-century methods—but it is used in excess and without judgment, whole yards of glass being smeared with it in great uninteresting patches stippled level to obscure the light—a treatment in great part responsible for the utter failure of Sir Joshua Reynolds's window at Salisbury.

Perhaps owing to the slovenliness proper to the period, or perhaps because the thin sheet glass had a way of bending under a hot fire, the practice arose of adding a larger quantity of flux to the outline-colour than had been used before. Very ludicrous effects are sometimes encountered in consequence. The superfluxed colour yielded to the atmosphere and faded or came off the glass wholesale—something after the manner in which some of the little sixteenth-century Flemish medallions are prone to behave—and the heavy matt on either side of the now white outlines shows doubly dirty by the contrast. Such an effect recalls the appearance of a photographic negative, all the outlines and darker features which were aided by outline colour showing ghostly white. The outlines of the lion rampant on the central shield of Plate XVI show this failing.

In fact there is no end to the faults that can be found with the work of English eighteenth-century glass-painters. It is more pleasing to give them credit for their one virtue—that in a period when artistic taste was at its lowest they kept unbroken the succession of

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native workers in stained-glass from the twelfth century down to the present day. The secrets of our handicraft were never lost. The art of design was forgotten; the leaders were dead or had deserted; but the rank and file kept on in face of neglect and discouragement. Ill-trained, often led astray, sheep without masters though they were, still they went on cutting their glass and making their own colours and their silver stain, stippling matt, and soldering leads, and stoking their clumsy kilns, when all the world had forgotten their existence, or only remembered it to brand them as "Gothick"—that most insulting term. And, deny it though they doubtless did most strenuously, Gothic they were—all honour to them! Though they strove successfully to hide all traces of its origin, yet all unwitting they were handing down to us unbroken the purely Gothic traditions of their handicraft. That the connexion really was unbroken is proved by the remarkable succession of glass-painters in the city of York. To Mr J. W. Knowles, now practising there, I am indebted for the following names and dates of his predecessors. Henry Gyles, who was born in 1672, died in 1709. William Price, the date of whose birth cannot be ascertained, but who was probably the William Price, senior, mentioned as having painted a window for Merton College Chapel, died in 1722. William Peckitt died in 1795,—whilst John Barnett, who succeeded him, born 1786, died 1859—was a personal and intimate friend of Mr Knowles himself, thus providing an unbroken succession from the seventeenth century to the present day.

Impossible as it may seem to those acquainted with the works of the eighteenth century, things actually got worse and worse during the first quarter of the nineteenth. But there were signs of new rejuvenescence. About the year 1820 a window was fixed in the church of St Roch at Paris which deserves notice as the first work in stained glass executed in that country since the Revolution. During the Pugin revival in the 'twenties several painters—amongst whom the writer is proud to number his great-uncle—stimulated by the new interest in Gothic architecture, turned their attention to stained-glass. Their first attempts were almost slavish copies of earlier styles of design—imitations for the most part of thirteenth-



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century work. But their material was hopeless—smooth sheet glass, as thin as it could be made, and of excruciating colour—so that the attempts at executing Gothic designs in such material were fearful and wonderful things, savagely kaleidoscopic in effect and even more offensive than the enamelled atrocities of the later Georgian work.

Then, just in the nick of time, came Winston, the barrister, to whom modern English glass owes its very existence. An amateur of glass, possessed of insight and intelligence, he began at the beginning—instituting an enquiry into the nature and composition of the early materials and, for the time being, leaving the question of design to look after itself. In conjunction with two well-known glass makers, he produced the “antique” glass in use at the present day, an excellent material, and made better in England than anywhere else in the world. In 1847 he published “An Enquiry into the difference of style observable in ancient glass-paintings, especially in England, with hints on glass-painting, by an amateur,” and with that work laid the foundation-stone of modern glass-painting. Four years later, as many as twenty-eight English glass-painters exhibited works at the Exhibition of 1851, and though most of the exhibits were enamel paintings, the number of entries can only be regarded as extremely large, bearing in mind the disfavour from which glass-painting had only recently revived.

Since that date the tendency has been steadily upward, and at the present date the work of English glass-painters is as superior to continental work as ever it could have been in past centuries. It suffers occasionally from haste. Some painters have a venture-some way of hovering near the danger-line of superfluxing, in order to save time in the kilns ; but this is almost the only fault that can be alleged against the modern craftsman, and it is fortunately an infrequent one. It is comforting to reflect that though much modern French and German work is good, English work indubitably is better, so that we have the honour now, as in the sixteenth century, to stand at the head of our handicraft throughout the world.

## CHAPTER VI. HERALDRY.

Early "signatures"—St Denis and Abbot Suger—Trade guilds and their emblems—The first English heraldry—Its immediate popularity—The fourteenth century—The Beer Ferrers glass—Tewkesbury—"Coats"-of-arms, robes with blazonings—Heraldic design in the fifteenth century—The Ockwells shields—Sixteenth-century domestic glass—Heraldic glass under the Tudors—Badges in glass—The Stuart Gothic revival and heraldic quarries—The predominance of heraldry over subject work—Simple earlier bearings and workmanship—Greater intricacy of Perpendicular bearings—Eighteenth-century examples—Diapers.

**N**O sooner had the earlier glass-painters come to feel at ease in their handicraft—now no longer a new phenomenon, but a thing in general use, possessing interest for the wealthier and more cultured classes—than a desire was evinced on the part of persons responsible for the erection of windows to incorporate within the glass itself some reference to its donor. The twelfth-century windows at the abbey church of St Denis, near Paris, provide the earliest known example of this practice. Abbot Suger, in whose time they were erected, caused a little figure of himself, with the inscription SUGERIUS ABAS written clearly on a scroll to render its identity unmistakable, to be painted in the base of a window to the left of the Lady Chapel. He is depicted kneeling at the feet of the Virgin in the panel of the Annunciation.

These St Denis windows were executed between 1140 and 1144, and this little bit of ostentation stands alone at so early a date. The thirteenth century, however, provides several instances—less egotistic perhaps—but none the less having the same effect of ensuring due credit to the donors so long as their gift should endure. At Chartres the company of furriers, who presented a window to the Cathedral, are commemorated by a little shop scene occupying one quarter of a quatrefoil. A salesman holds up a cloak lined with fur for the inspection of a customer, whilst a boy standing behind him takes other furs from out a metal-clamped



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chest. The fur lining is unmistakably the heraldic fur now known as *vair*, a number of skins of some small beast—probably of the stoat kind—sewn together, grey backs and white bellies alternately. At Chartres the butchers' window has a panel in which a member of their company pole-axes a blindfold ox. The body of a sheep, flayed and disembowelled, hangs from the canopy arch overhead, and a dog sits up expectantly before the tethered victim. A figure of a scribe writing on a scroll, which occurs at Semur, is also probably intended as a portrait of a donor, and figures of bishops, knights, and other greater folk, holding representations of the windows they caused to be erected, are comparatively frequent in France both in the thirteenth century and that succeeding it.

No recorded instances of such early figures appear in England, but with the great increase in glass-painting that marks the fourteenth century they are of frequent occurrence, and from their very first appearance display in one form or another the heraldic cognizances of the families to which they belonged. Nothing in the history of stained-glass is more inexplicable than this sudden rise of heraldry into prominence. The science—if science it can be called—was in full favour, controlled by the same rules as guide it at the present day, some time before the close of the thirteenth century. Yet, despite its popularity—and, at that unlettered period, its genuine utility as well—and despite the fact that coats-of-arms are most suitable for execution in glass, not one single instance of heraldry in windows appears to be recorded until well into the fourteenth century.

When it came, it came with a rush. Its ease in execution, its excellent decorative effect, and its suitability for the smaller tracery openings now becoming day by day more common, combined in one appeal, not to be resisted by the fourteenth-century glass-painter. He went mad about it. Not only did his figures of donors wear surcoats emblazoned with their family bearings, not only did the shields they bore repeat the same arms, but series of escutcheons formed centres for the popular grisaille, adorned the bases and canopies of the subject windows, occupied the tracery openings (Plate X), and in many instances heraldic bearings ousted

## PLATE XVIII

### TYPICAL SWISS PANELS

Fig. 1. From Mr Grosvenor Thomas's Collection. Dated 1577. Our Lord, in purple robe and crown of thorns, stands between the Blessed Virgin and St James the Greater. Background is diapered potmetal (purple), the diaper being of late character. Kneeling donor in lower left-hand corner is in white, black and yellow stain. Blue enamel is used in spandrel subjects, in Virgin's robe and in shield at base; abrasion only once, where St James's staff crosses his red cloak. Size,  $15\frac{3}{8}$  inches by  $9\frac{7}{8}$  inches.

Fig. 2. From Mr Grosvenor Thomas's Collection. A religious panel. Early seventeenth century. No abrasion occurs, and the only enamel is blue. One piece of grey potmetal at centre of top has a yellow stained wreath. Size,  $12\frac{3}{4}$  inches by  $8\frac{5}{8}$  inches.

Fig. 3. From Mr Grosvenor Thomas's Collection. Dated 1671. By W. Spengler, of Constance (see Appendix B). His signature, "W.S.P.," occurs twice, in lower right-hand corners of subject panel and inscription plaque. No potmetal or abrasion, all colouring being in enamel, which is of good quality, especially a fine red in canopy. Division into six panels marks the period. The pane in lower left-hand corner has been broken and replaced in an English Perpendicular border. General character of work rather German than Swiss. Size,  $13\frac{5}{8}$  inches by  $10\frac{1}{8}$  inches.

Fig. 4. From Mr Grosvenor Thomas's Collection. Dated 1624. By Johannes Kachler, of Uri (see Appendix B). Coat of arms of an ecclesiastical official. Shield and mantling in purple and green enamels and yellow stain; upper central medallion has the same colouring with the addition of blue in the Virgin's robe. Canopy is ruby with an abraded pattern of circles and oblongs repeated on the frieze, and the inscription plaque is framed in ruby. Flesh-colour enamels used freely about figures of St Sebastian and St Francis of Assisi. Size, 13 inches by  $8\frac{1}{4}$  inches.

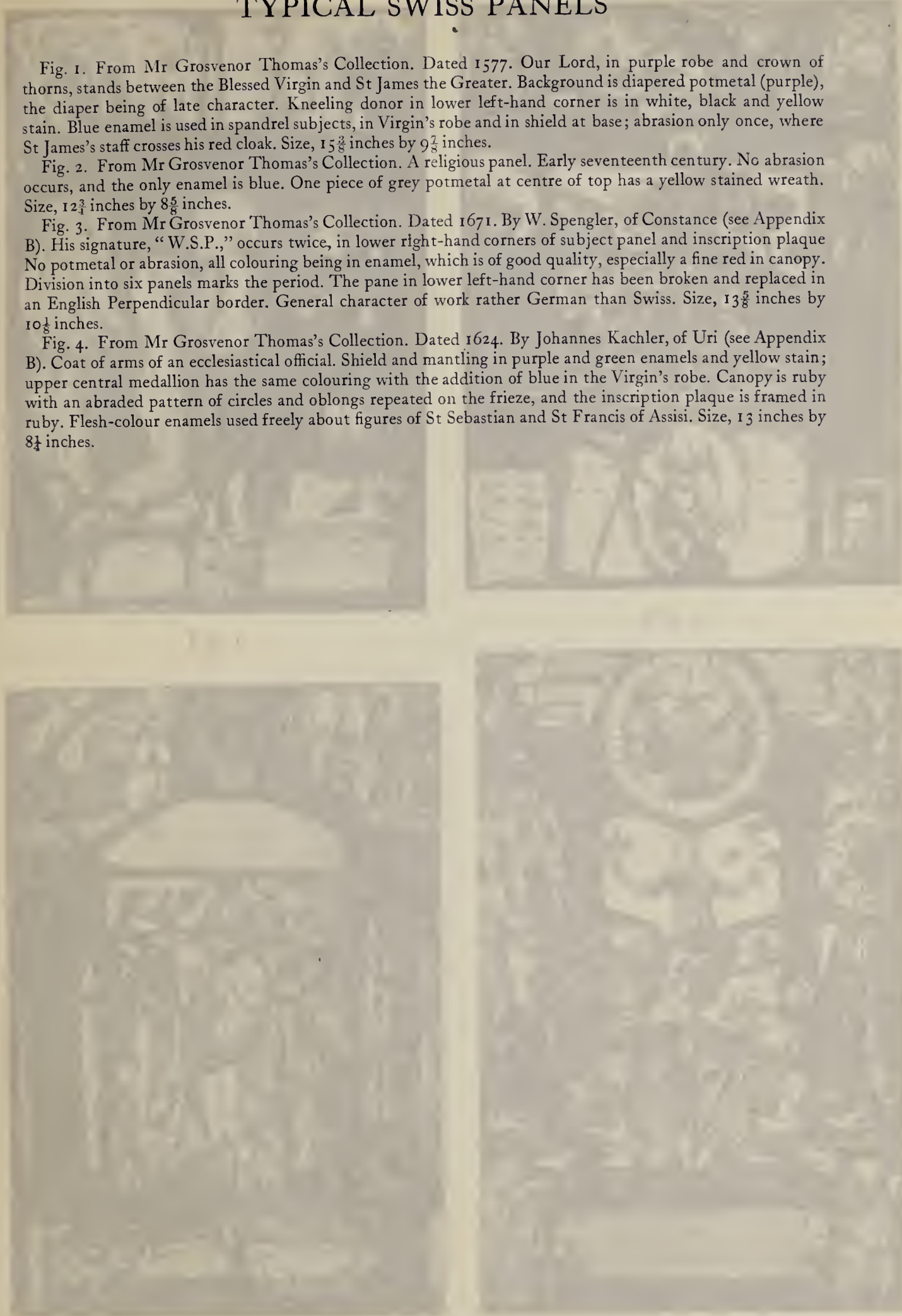








PLATE XVIII



Fig. 1



Fig. 3



Fig. 2



Fig. 4





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the popular floral borders round the lights. The east window at Beer Ferrers, Devonshire, which dates from about 1330, and thus is quite an early example of heraldic glass, shows the avidity with which the glass-painter seized upon the new fashion (Plate VI, fig. 2).

The arms of the Ferrers family, *Argent three horseshoes or upon a bend sable*, are twice displayed upon the figure of the knight, on his surcoat and on an oblong feature resembling a banner, just above his right shoulder. They occur again upon the robe of the lady who kneels to face him, and finally the borders around the lights actually consist of a repeated series of tiny oblongs bearing alternately the arms of the knight's family and that of his wife (Plate VI, fig. 1), whilst larger coats-of-arms form centres to the grisaille backgrounds. The oblong feature referred to as being above the knight's shoulder is very puzzling in appearance, but judging from a similar figure at Wells it may be intended to represent a flag or standard, the shaft of which has disappeared during some incautious restoration, though it is only fair to say that similar standards—or whatever they may be—occur without the shaft in the same way in the Harcourt window in Evreux Cathedral.

There is a fine series of similar heraldic figures at Tewkesbury Abbey, with surcoats displaying the arms of the Despencers and De Clares, which are typical Decorated work, and are well worthy of attention.

The Norman form of shield was long, tapering from chief to base, and somewhat inclining towards an ovoid shape, the upper edge being slightly convex and the angles rounded. This shape, however, antedates the use of heraldry in windows, and no instances of its employment in glass are known. By the fourteenth century the shield has become flat along its upper edge, is shorter in height, and its three angles are more sharply defined, so that it somewhat resembles a modern flat-iron, a resemblance which has resulted in its being known as a "heater" shaped shield. The shield below William de Ferrers' effigy (Plate VI, fig. 2) shows the form exactly. Such countless instances of coats-of-arms painted upon this shape of shield adorn Decorated windows throughout



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the country that their presence, together with the occurrence of minor heraldic details in borders and the like subsidiary positions, is one of the most reliable tests for dating the stained-glass of the period.

Towards the close of the Decorated style the means of enriching shields, known as diapering, first appears. This subject will be found dealt with more fully under the characteristics of each period of heraldic work.

In addition to the surcoat four other forms of garments were shown charged with heraldic bearings. It has been suggested that their purpose was to keep the rays of the sun off the metal armour, and the idea seems very feasible. Chaucer alludes to their use:

“A vesture  
Woiche men yclept a cote-armure  
Embroidered wonderly riche.”

By his time the custom had arisen of quartering the bearing of allied families with the paternal arms of the wearer, for he admits that,

“to describe  
All these armis that therein yweren  
For to me were impossible.”

The forms of these garments, literally coats-of-arms, often present valuable evidence of date. The Ferrers effigy wears a true surcoat—long, flowing, and sleeveless, reaching to the heels, and divided up the front as high as the girdle. Following it, and for some time used side by side with it, is the cyclas, which like it is long behind, but is cut off instead of being divided at the level of the waist in front. Possibly the long flapping corners of the surcoat were in the way, especially when fighting on foot, whilst the cyclas left the legs and feet comparatively free. The jupon first occurs earlier than the cyclas, but it did not at once attain an equal degree of popularity. About the middle of the fourteenth century, however, both the earlier forms of garment disappear in

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its favour. The earlier jupons, like the cyclas and the surcoat, are sleeveless and fit rather closely about the trunk of the wearer, their loose skirts being cut off above the knee. The later and commoner form fits quite closely and is cut off at mid-thigh. All four forms disappear entirely about the end of the fourteenth century. The earliest, the surcoat, was in use a full century before its first appearance in stained-glass—that is to say about 1210. The long jupon first occurs about 1315 and makes its last appearance in 1405. The cyclas dates from circa 1320 to 1350, and the short jupon from 1340 to the end of the century.

Forty years after the disuse of this last garment the tabard becomes fashionable. It resembles the short jupon in length, but is looser and at first has short loose sleeves reaching only half way to the elbow. These sleeves as well as the front of the tabard were sometimes embroidered with the wearer's arms, so that the one garment presents the same shield three times over. Occasionally where the arms are quartered only the first or most important quartering appears upon the sleeves, as in the case of a little Royal donor now in a private collection at Edinburgh (Plate XIV, fig. 5). The tabard in this case is worn over chain armour and displays England quartering France, the additional quartering on the left sleeve being that of England only. This figure probably dates from about 1420. Another fine figure of Philip le Beau in Mr Grosvenor Thomas' collection wears a tabard with a great number of quarterings, the ancient arms of Austria—*Azure six eagles displayed or*,—being glazed up on the right or dexter sleeve. This example dates from about 1500, after which date the tabard soon becomes extinct.

Finally, the mantle, worn by men and women alike, was sometimes embroidered with arms. It was a flowing robe, the shape of an episcopal cope, fastened at the neck and hanging down behind the wearer. From its position it follows that the whole of the charges upon it are very rarely visible, for naturally figures were not drawn with their backs towards the observer. The lady Matilda de Ferrers wears a mantle with her husband's arms, and there is a fine but rather puzzling example, to which



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reference has already been made, of a mantle embroidered in true heraldic fashion with lions passant, in Exeter Cathedral (Plate IIIA, fig. 2).

The mantling or lambrequin also had its lining sometimes embroidered with heraldic charges, but they rarely show any attempt at proper arrangement, the usual custom being to scatter small charges, such as mullets, ermine spots, or billets, broadcast over the whole surface.

These mantlings do not appear in glass till well into the fifteenth century. Their original form and colouring was a plain cloth wrapper, red on one side and white or ermine on the other. Being much exposed to use such wrappings naturally got cut and torn, and such a raggedness being prized as a proof of hard service, the heralds made the most of it, showing the lambrequin in ragged streamers behind the shield. The colour, originally crimson and white, was changed to correspond with that of the shield, the principal tincture being shown on one side of the ragged streamers and the principal metal on the other. The wavy, twisted ribbons, now showing colour, now metal, were extremely difficult to glaze, which is probably the reason for their late appearance in windows.

The ragged ends soon became foliated or treated in some ornamental fashion, and gradually from long twisted ribbons they developed into closely intertwined foliage, which was seized on by the Swiss painters and exploited to the utmost of their skill, as may be seen in the illustrations to the chapter dealing with their work. In England they were never in great favour. No heraldic feature is so difficult to treat satisfactorily in glass, and nothing shows more forcibly the extraordinary deftness of the Swiss glass-painters than the fact that they positively revelled in its employment.

One other embroidered vesture deserves notice—though no example appears in English glass. The long flowing apparel of war-horses, known as *bardings*, sometimes bore the owner's heraldic devices, and they are also occasionally repeated on oblong banner-like features—something like the puzzling object on Sir

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William de Ferrers' shoulder (Plate VI, fig. 2)—which are drawn hanging on either side of the animal's neck and body.

In the fifteenth and sixteenth centuries heraldry remained in no less favour. The quarry windows of the earlier period are largely heraldic, the shields of arms being placed as centres to the lights, whilst the bearings, mottos, crests, and badges of their owners were repeated on the quarry backgrounds. The single light from St Decuman's Church at Watchet (Plate VI, fig. 3) shows the broom-plant—the cognizance of the Plantagenets—used as a quarry pattern throughout the background, whilst a later quarry painted with the same plant but treated after the manner of the fully developed Perpendicular style is shown on Plate XIV, fig. 1.

Mottos as a quarry pattern may be seen at Winchester, round the arms of Cardinal Beaufort at the Hospital of St Cross (Plate X, fig. 2), and running diagonally between the quarry rows at Ockwells, in Berkshire (Plate XIV<sub>A</sub>, fig. 1). The first-named heraldic quatrefoil shows the need the painter was beginning to feel for something to soften the hard outline of his shield, now rendered doubly abrupt and harsh by the lighter character of the background. Just as the heavily coloured figures of the Decorated period had called for canopies between them and the lighter toned grisaille around them, so now the heavily coloured shields which had looked their best upon that same grisaille looked almost black against the thin transparent quarries. Mantlings were not yet—though they appear shortly after at Ockwells—and the Winchester painter carries the strings of the Cardinal's hat round his shield to serve their purpose. It may be added that the shape of the shield itself is unusually square for the period. At this time the pointed "heater" shape was only in process of yielding to the broad-based Perpendicular form.

There are fewer instances of heraldic borders in the fifteenth century. For one thing, the border was no longer the popular feature it had been, and the painter had grasped the fact that the more attention he gave it, and the more interest it possessed, the more it drew the eye away from the central features of his window.



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Besides, the diamond-shaped quarry panes called for ornament and lent themselves far more readily than the grisaille patterns had done to the repetition of minor heraldic details. In the churches the little straight-sided tracery openings proved exceptionally suitable for displaying coats-of-arms, and one treatment becomes so general as to be almost stereotyped. The shield occupies the centre of the opening, in the narrower instances extending across its whole width. In shape it had developed from the "heater" to an almost straight-sided form still retaining the sharply pointed base (Plate X, figs. 1 and 3), and from this was in process of development to another shape, with flattened base and straight sides and top, which in some instances approaches the rectangular. Where space permitted of such a treatment a figure of an angel very often holds it between both hands. No such treatment being possible in narrow lights, the shield was commonly hung upon a conventional tree or bush springing from the lower part of the opening, its foliage filling the intercuspatations of the head. From its branches the shield is suspended by the *guige* or strap behind it by which it was carried when in use (Plate X, figs. 1 and 3). Sometimes in later examples it hangs sideways, or *couché*, but more commonly is upright as in the examples shown.

The domestic glass now coming generally into use is very largely heraldic, and nearly every example shows the glass-painter's desire for some surrounding feature to separate the shield from the surrounding glazing. Some of the shields in the series at Ockwells House have well executed lambrequins which demonstrate better than any description could do the difficulties these excellent ornamental features present to the glass-painter. No other English examples are on record at so early a date, and the unusual shape of the shields which display the mantlings still further places this series in a class apart. They are what heralds term *a bouché*—that is to say, a deep notch is cut out of the dexter chief for the lance, a very rare feature in English glass at this period, and being moreover of a twisted awkward shape—sharply concave on the dexter side and slightly convex on the sinister, with the base and chief serrated into four points, they must be regarded

## PLATE XIX

### THE THREE PRINCIPAL TYPES OF SWISS PANELS

Fig. 1. Kabinettscheibe, from the Landes Museum at Zurich. Dated 1536. An early example both of a marriage panel and of a landscape background. Inscription is short, shields inconspicuous, spandrels in white and stain only. One shield and the woman's sleeves are abraded, and there is no enamel.

Fig. 2. Wappenscheibe. From Mr Grosvenor Thomas's Collection. Dated 1600. Plain background of clear yellow stain, longer and better written inscription, large shield. Canopy shafts hidden by small auxiliary figures of Faith and Charity, treated in enamel and stain. Spandrels are in white and stain only. Abrasion occurs in capitals and keystone of arch, and the blue glass of arch has been stained with yellow volutes. Size,  $12\frac{1}{2}$  inches by  $8\frac{3}{4}$  inches.

Fig. 3. Standescheibe. From the Landes Museum at Zurich. Circa 1518. No inscription. Spandrel ornament in low relief, white and stain only. Background laid black and scratched with a damascened diaper. No abrasion or enamels whatever: colouring only potmetals and stain. Note lingering Gothic influence manifest in elliptical arch and angular canopy shaftings, also bad perspective of tiled pavement. The arms are of the town of Elgg, and the standard is a representation of one presented to that town by Pope Giles II in 1512.











Fig. 3



Fig. 2



Fig. 1





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as a sporadic departure from characteristic fifteenth-century glass design.

One of the simpler shields from this series is illustrated on Plate XIV<sub>A</sub>, fig. 1. Here the shape of the shield is the usual early Perpendicular form, something between the "heater" and the true Perpendicular pattern with the flattened base. The painter has given up the attempt to represent mantlings, and the shields are separated from the background of quarries and inscriptions by exaggerated crowns above and rather cramped figures of supporters below them.

A more useful treatment is to surround the shield with a wreath or scroll in white and stain, the latter bearing its owner's name in the black-letter text of the period. A series existing at Bampfylde House, Exeter, though made up from two or three windows by different painters, shows this scroll treatment throughout (Plate XIV<sub>A</sub>, fig. 2).

The wreaths usually consist of a central stem around which the leaves wind spirally, as in the fragment of border on the right of the Chudleigh-Champernowne Shield at Ashton (Plate XIV<sub>A</sub>, fig. 3), the leaves showing white upon one side and yellow on the other, and sometimes, but rarely, a combination of the two is found, the stem being intertwined with the lettered scroll.

With the evolution of the sixteenth-century type of domestic design—clear glass surrounding a central plaque painted and stained with heraldic or other features—the painted quarries fell into disuse, owing to their liability to obscure the view, and, the whole attention of the painter being concentrated on a small area of the window, heraldic work was executed with new delicacy and care. Under the Tudors heraldic windows came to be regarded as necessary furnishings to a mansion, and their possession was of itself a mark of dignity. In *King Richard II* (Act III, Scene 1) Shakespeare puts into the mouth of Bolingbroke an expression in this:—

“ Whilst you have fed upon my seignories,  
Disparked my parks and fell'd my forest woods,  
From mine own windows torn my household coat



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. . . . . leaving me no sign . . .  
To show the world I am a gentleman.”

From the reign of Henry VIII the Perpendicular wreath of spiral leafage gives way to a still more conventional Renaissance treatment also in white and yellow stain.

Many and most varied forms of shield occur. The shield *a bouché* and with the serrated chief and base is fairly common, but despite the better workmanship of the period lambrequins are still too difficult to invite many attempts at their execution. The wreaths, however, become much more ornate, the more elaborate examples being executed in pot-metal foliage, generally green, with white and stained features such as gorgets, masks, initials and flowers inserted in them at intervals. The frontispiece shield from Nonsuch House and the medallion from Cowick Priory (Plate XIV<sub>A</sub>, fig. 4) show the early Tudor medallion at its best. Dating from the reign of Henry VIII, before enamels came into general use, the former shows admirably what rich effects the painter secured by abrasion alone. Abraded glass occurs in seven of its ten quarterings, and the other three—the quarterings of France, *Azure three fleurs-de-lys or*, and the quarter *vair* in the sinister chief—are well glazed—the latter being excellent work considering its small scale.

From the middle of the century enamel comes into more general use, though not with the same frequency as in continental glass. Its first effect was to give the heraldic painter a freer hand with his lambrequins, but the facility came almost too late to be of use, for the Elizabethan cartouche, all strap-work and volutes, very shortly took the place of mantling. Smaller shields with a greater number of quarterings were rendered possible, and the glass-painter took full advantage of this new freedom, though his smallest work never approached the minuteness of contemporary Swiss glass.

A distinctive feature which appears in great profusion from the reign of Henry VII onwards is the heraldic badge. It had been in use as an accessory of coat armour as early as the middle of the fourteenth century, but it does not appear in stained-glass to any

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great extent before the early Renaissance. Well-known Tudor Royal badges are the split pomegranate of Granada, borne by Katharine of Aragon, the rayed and crowned roses, the portcullis, and the greyhound. An interesting badge of the period is shown on Plate XV, fig. 2, and another almost exactly similar is at St Donat's Castle, Glamorgan. A phoenix rising from a castle between two Tudor roses is one of the favourite badges of Jane Seymour (to whom belongs the coat-of-arms from Nonsuch in the frontispiece), but this example shows several puzzling additions. The bird is certainly a phoenix, it is true, though the characteristic flames are very inconspicuous, and the bird is crowned. One Tudor rose is white, as it should be, but the painter being unable to paint the other red has stained it yellow. There is nothing remarkable in this, as such a course was frequently pursued, but what is very strange indeed is that the roses are alternated with yellow (doubtless also intended for red) and white carnations. The second crown and bush over the castle gateway are also perplexing. It has been suggested that they represent the crown found among bushes after Bosworth Field, but this can only be conjecture.

The frequency with which badges were employed during the Tudor period has always been somewhat of a stumbling-block to antiquaries. Heraldically speaking, they have no official status, no grant of a badge as such ever having been made, and their only occurrence on heraldic documents being in the form of auxiliary charges on banners. If a glass-painter may hazard a suggestion, their greatly increased use during the sixteenth century may perhaps be due to the architectural features presented by windows of the period. In many Tudor buildings these were of great size, divided by mullions and transoms into a large number of rectangular lights. The glass designs of the period called for ornamental centres to such lights, and no matter how many quarterings a family might be entitled to bear, such a number of lights must have entailed many repetitions of each quartering. To avoid such repetition and eke out the number of coats-of-arms, badges would be exceedingly useful adjuncts, and it is surely not impossible that



## A HISTORY OF ENGLISH GLASS-PAINTING

their increased employment at this period may have been induced by a demand on the glass-painter's part.

Under the early Stuarts, the attempt at a Gothic revival, the characteristics of which have been dealt with more fully in Chapter V, induced a return to certain Gothic forms in glass, chief amongst them being the quarry. The older conventional quarry-patterns found little favour amongst the later craftsmen, now accustomed to ornamental work upon a smaller scale, and these later diamond-shaped panes were often painted with heraldic details, the badge, now well established in use, being prominent amongst them. Good examples of such private badges are given on Plate XV, figs. 1 and 3 and on Plate XII, figs. 7 and 8. The peacock is treated in outline colour, yellow stain, and matt, cooled here and there by little touches of pale blue enamel, and is a very pretty instance indeed. Such richly drawn integers of ornament would not bear too great a number of repetitions without becoming wearisome, and some simpler pattern was employed in conjunction with them. These simpler alternations were often initials, disposed as a cipher or monogram or tied together with a knot, as in Plate XII, fig. 1, which shows the initials of Thomas Brerewood, or Briarwood, one time Rector of Bradninch, the head manor of the Duchy of Cornwall. Crests were common and the more elaborate they were the better the painter was pleased. Plate XII, fig. 8 shows that belonging to the Haydon family: *a lion argent vulning a bull sable*. These features, often treated in enamel colour, here employed in its right place, gave delightful little touches of colour to the otherwise plain glazing of the Stuart windows. Sometimes the full name of the owner was written on a plaque surrounded by pseudo-Classic foliage and at others a combination of badge and initials was used. Occasionally, but not often, the whole shield was placed upon a single quarry, as in the arms of Carew of Hacombe (Plate XII, fig. 2). In fact the heraldic quarries of this later period show all the variety of their prototypes in the fifteenth century, combined with far more elaborate and perfect execution.

The civil strife of the seventeenth century naturally gave a set-

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back to heraldic glass in England. The quarries became extinct again, and the few medallions that were painted were generally smaller in area and of less artistic merit than before; but with the Restoration coats-of-arms again came into favour, and have retained their popularity ever since. From the sixteenth century many windows, even in churches, are entirely heraldic, and nothing is more eloquent of the national change in attitude towards religion. Whereas in the fourteenth century William Langland finds fault with donors for their ostentation in having even their bare names inscribed upon the windows they had given, in 1688 the successors of the Crabeths painted whole windows at Gouda with nothing but shields and inscriptions, and Peckitt, in 1765, not content with filling the enormous area of tracery in the west window at Exeter with heraldry, ousted the saints from two of the main lights to continue his series of donors' shields, until the finished window contained seven meagre saintly figures to no less than forty-seven large achievements of arms. He and his contemporaries could paint heraldry far, far better than they could paint subject compositions, and they knew it, and made the most of it. Its special suitability for stained-glass; the good character of its colouring, due to the limited palette allowed by heraldic authorities; the interest it gave to windows; its ease in execution; and above all the fact that donors of windows nearly always belonged to the class entitled to bear arms, sufficiently explain why heraldry and stained-glass have always gone hand in hand since first they were combined. The only wonder is that that combination was delayed until heraldry had been a century in general use.

The earlier coats-of-arms were very simple in their blazoning. The coloured sash or belt or emblem of faith, worn to distinguish its visored wearer in the field, became an heraldic *ordinary*, in the form of the bend, the fess, the cross, or the saltier, and such *ordinaries* served the first limited demand for distinctive coat-armour. The class of bearings known as *subordinaries* were scarcely less simple, and these *ordinaries* and *subordinaries*, numbering only about five-and-twenty forms in all, varied by a few common charges, served all the early heralds' needs. One ordinary, the bend,



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with a single subordinary, the label, comprise all the bearings on the shield below Sir William de Ferrers' effigy on Plate VI.

Such bearings offered relatively broad expanses of colour, and their outlines presented no difficulties to the glazier. The chief, the bend, the fess, the pale, the pile, the canton, the chevron, the cross and the saltire all have straight outlines, and were actually easier to glaze than the shaped panes of contemporary grisaille. The simpler their form, the more highly they were held in esteem. For instance, the chief, which can be drawn by one line—and thus glazed with a single lead-line—is a more honourable ordinary than any other. The pale, the pile, the fess and the bend, requiring two straight lead-lines each, all take precedence of the chevron, the cross and the saltire, each of which is somewhat more elaborate in outline. It would almost seem that the heraldic draughtsmen had some voice in the selection of the bearings, and this appears even more probable when the "common charges" are examined.

For the most part these were weapons, implements of the chase, or such other appliances as would naturally be well known in chivalry. As common as any is the five-pointed star known as a mullet, which is intended to represent the rowel of a spur. Spear-heads, caltrops—four-spiked implements for bringing down horses in a cavalry charge—clarions, which may have been intended as musical instruments, but which from their shape may quite as likely be lance-rests—such simple bearings, easily drawn and easily recognized, are among the earliest in use. It is noticeable that all such objects as call for any extra skill in draughtsmanship very rarely occur. Thus, saddles and bridles are infrequent charges, though one would think them just as likely to occur as horseshoes, which are common. The fleur-de-lys is popular, and so are the lion and the eagle, and where such comparatively complicated features occur, they are treated in the simplest and most workmanlike manner. A pane of glass is cut approximating to the main outline—often paying so little attention to its minor irregularities that the fleur-de-lys becomes a lozenge, the lion a true oblong, and the *eagle displayed* a hexagon. The pane is then entirely covered with a level

# PLATE XX

## SWISS PANELS, STANDESCHEIBE

Fig. 1. From the Landes Museum at Zurich. Circa 1550. Arms of Canton Schwyz by Christoph Murer. Probably youthful work, judging from crude drawing of hands and faces and from strong Gothic influence at so late a date. Angular shafting with weatherings for capitals, diapered potmetal backgrounds and simple treatment of spandrels are characteristic of a period twenty years earlier. No enamels occur, and the only two examples of abrasion are on the standards.

Fig. 2. From the Landes Museum at Zurich. Dated 1550. Arms of Canton Glarus by Carl von Egeri. An exceptionally fine example. Note canopy spandrels richly treated with a battle scene in white and stain only, the rich character of voluted arch and excellent workmanship throughout. These swaggering figures, first drawn by Carl von Egeri, became later almost universal. There is no enamel, but abrasion is freely used: on the arms of Glarus, the standard and its staff, and in the slashed clothing of its bearer. Note also rendering of hair, eagle's feathers, chain mail, and filigree work about central crown, all of which are etched with the needle point.

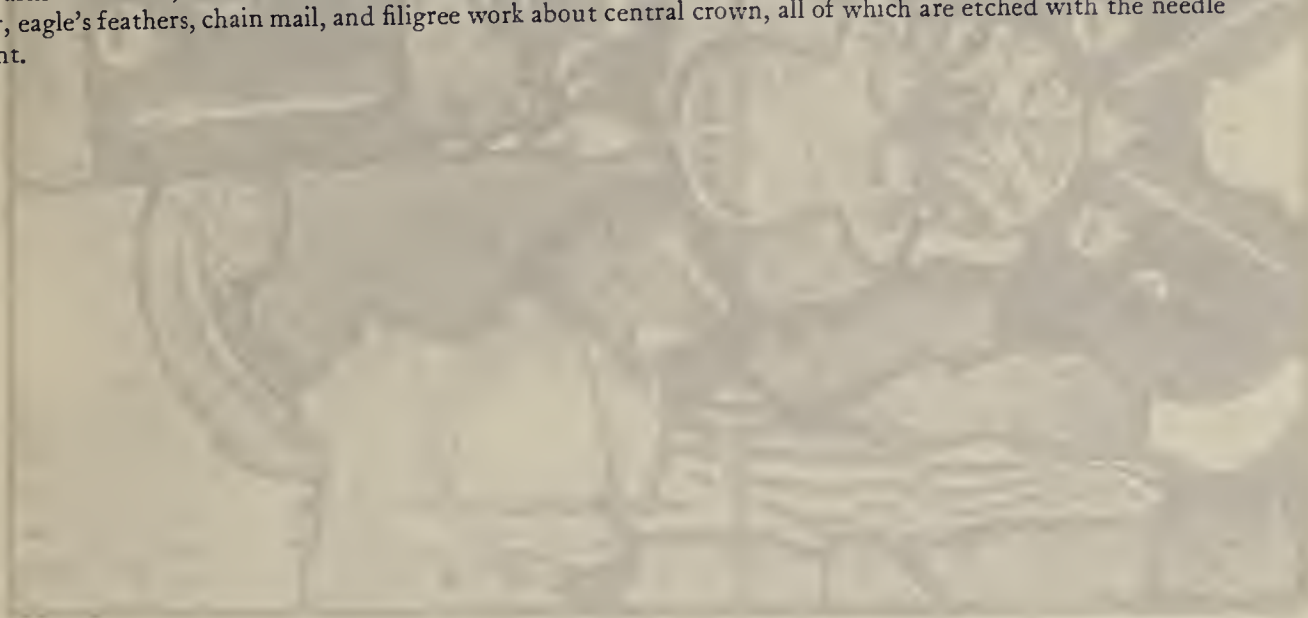










Fig. 1



Fig. 2





## HERALDRY

black coat of outline-colour, and the beast, bird, or whatever the charge may be is scratched out boldly with the point of a stick. One or two examples of this mode of treatment may be seen near the top of the panel on Plate XVI. Such a mode of treatment appears clumsy when described, but in the large shields the period presented it was none the less effective in practice.

By the end of the fourteenth century the limited number of such charges, *ordinaries*, and *subordinaries*, had been exhausted by countless different combinations and transmutations of colour and arrangement. Confusion resulted, and other bearings, often more complicated and requiring better draughtsmanship, came into use. Further, the decreased size of Perpendicular tracery openings demanded that the new and richly blazoned shields should be executed on a smaller scale, thus adding enormously to the difficulties of the glazier's task. But the fifteenth-century glass-painter was quite equal to the occasion. His work was better in every way. Yellow stain aided him wherever gold was required, and annealing, abrasion and insertion were added to his repertory. Sometimes he was almost too painstaking. The abraded portions between the legs and tail-curves of the Ashton lions (Plate X, fig. 1) rather defeat their purpose, only emphasizing the fact that each lion is surrounded by a lead-line. Had these spaces been blacked in with solid masses of outline-colour the leads would have been less apparent. As things are the observer is tempted to ask why, since so great pains were taken with the abrasion, the Chudleigh impalement was not cut in one ruby pane and the whole surface abraded, leaving the little lions unembarrassed by any lead-lines at all? The Courtenay arms from the same church (Plate X, fig. 3) show better judgment, for roundels, such as these *torteaux*, are eminently suitable for insertion, and moreover have a tendency to appear polygonal when their circumference is joined by radiating leads. The leopards' heads upon the Coplestone shield (Plate XII, fig. 6) are better still, the inserted tongues being miracles of deftness, and it seems a pity to be compelled to point out that both this and the Courtenay example have suffered by reason of that liability to breakage which is the penalty of all such



## A HISTORY OF ENGLISH GLASS-PAINTING

*tours-de-force* in glass. The brutal methods of a century earlier presented no such drawback.

Thinner glass, lighter leads, and the beginnings of enamel treatment helped the sixteenth-century painter to achieve more successful results with far less labour. The new type of design, clear glass with a central medallion, not only confined his labours within a smaller area, but confined the interest of his patrons, too. In secular glass he was on safe ground, certain of praise for meritorious workmanship, whereas he could feel no such assurance if his natural bent led him to the execution of religious subjects for church windows. The zeal of the first ardent Reformers seems to have shown itself everywhere in the destruction of all pictures, glass, or carvings, wherever the hated term "idolatrous" could be alleged against them. It is true that windows for the most part escaped the complete destruction that befell paintings and the carven images. This was mainly because they had a useful as well as an ornamental part to play. They kept out the weather, and so were often spared on account of their utility, but the Reformers generally took the precaution of smashing out the heads of any saintly figures they contained to render them the less liable to mistaken worship. Under such circumstances, it is not surprising that many able glass-painters were content to confine themselves to work for the houses of men rather than for the House of God.

Heraldic work retained its popularity until towards the end of the eighteenth century, when the incursion of such picture-painters as Sir Joshua Reynolds, West, and Mortimer into the realms of glass-painting resulted to a certain extent in the more ambitious glass-painters neglecting coats-of-arms and all other accessories in the attempt to produce glass-pictures. Only one solitary instance of heraldry being treated as a thing of importance occurs as late as the middle of the century, and that was in Peckitt's west window at Exeter, now removed. A coat-of-arms from this window occupies the centre of the panel on Plate XVI. Despite the wretched character of its enamel, which has flaked abominably, the drawing and treatment of the shield show some ability.

## HERALDRY

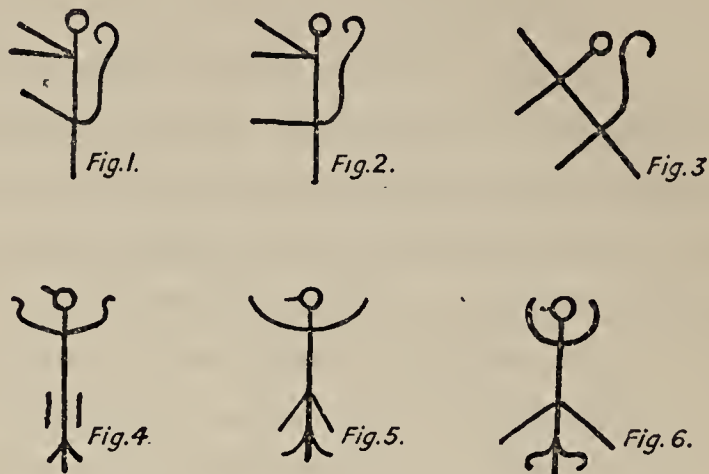
Speaking generally, when the eighteenth-century glass-painters did paint heraldry, they did better in it than in anything else. Having in view the atrocious character of all their work this says little, but it goes for something. In this later work, as in the first heraldic glass, herald and glass-painter seem to play into each other's hands to a certain extent. The earliest simple bearings were such as easily lent themselves to the lead-glazing of the period, whilst the ornate grants of arms under the Georges presented some sort of excuse for the enamel treatment affected by contemporary glass-painters. Heraldic work very largely predominating over figure-work in windows is almost always a sign of decadence, no matter how well it is done, for an artist completely at his ease in subject compositions rarely stoops to exert himself over merely ornamental accessories. Thus it may generally be assumed that if a painter really excels in heraldry he is weak in figure-drawing—as the seventeenth- and eighteenth-century painters most certainly were.

The characteristics—of material, technique, and so forth—of the heraldic glass of each period are the same as are displayed by other accessory details, the only peculiarities being in design. The shields of the early fourteenth century are of “heater” shape, or only vary from it in approaching the equilateral. Their bearings are confined to the *Honourable Ordinaries*, the *subordinaries*, and *common charges* of a simple character. Painted bearings are rude in execution, a large amount of opaque outline-colour being used about them, and there is never more than one colour on each piece of glass, yellow stain not having yet come into use. Diapers on shields do not appear until the close of the Decorated period, and then are of the simplest character—either a pattern of lines crossing the shield rectangularly with a rough attempt at some simple design in the squares thus formed, or composed of a series of circles or rosettes arranged side by side. Sometimes they are traced with the point of a brush (a later example of this being shown on Plate X, figs. 1 & 3), but a more common treatment is to lay the surface of the glass with a smeared or stippled coat of matt and to pick out the pattern with a pointed stick. The pose of



## A HISTORY OF ENGLISH GLASS-PAINTING

the early *lions rampant* and *eagles displayed*—perhaps the two commonest of the *common charges*—are quite distinctive and may most easily be rendered by the accompanying straight-lined diagrams :



These rough diagrams display the characteristic attitudes of different periods far more clearly than any elaborate drawings could do. The first (Fig. 1) shows the usual pose of a lion rampant during the first half of the fourteenth century. The head, rump, and left leg are in one perpendicular line; the left fore-leg is at right angles to this body line, and the right hind and fore legs incline upwards from ten to twenty degrees above the horizontal. These early beasts have only three clumsy claws on each foot, making it look more like a trefoil than a paw.

Fig. 2 indicates the form which followed it and remained in use until the end of the century. The only difference in structure is that the right hind leg has come down to a horizontal position, but by this time a fourth and smaller claw has been added to the three previously in use.

By about the middle of the fifteenth century the beast has altered its position altogether. The body and left hind-leg are still in line—a line now prolonged by the right fore-leg as well—but the line crosses the shield bendwise at an angle of about forty-five from the perpendicular. The head and neck stand back at right angles from this line on its upper side, whilst the left fore- and right hind-legs stick out, also at right angles, below it. The tail, hitherto thin and curved inwards, is now generally very bushy

## HERALDRY

and waves the other way—away from the head and body—and so helps to fill the sinister chief angle of the shield.

It may be noticed that these three shapes are admirably devised to fill the shields of each period. The first, the early narrow shield; the second, wider at base; and the third virtually a square.

The poses of contemporary *eagles displayed* show the same tendency to increase in width at base with the widening of the shield. Fig. 4 shows the earliest form. The beak points upwards, as do the shoulders of the wings. The legs are perpendicular, and the tail, equilaterally forked, is simple in design. In Fig. 5, which corresponds in period with the lion in Fig. 2, the wings are held more horizontally, the legs have taken on the equilateral structure of the tail instead of hanging perpendicular, and the tail is wider and more elaborately treated.

Fig. 6, which shows the form prevalent in the fifteenth century, seems at first sight a reversion to the earliest type, at least so far as the wings are concerned. But in the earlier wings the feathers, like the bird's legs, hung straight down in perpendicular lines, whereas in the fifteenth century they radiate from the sharply incurved line of the shoulder, so that the end or outer wing-feathers are horizontal, giving great width to the upper half of the bird. In this and the last example it will be seen that the beak is horizontal instead of pointing upwards, whilst in Fig. 6 the legs are more widely apart and the tail more ornamentally treated than ever.

The workmanship of the earlier shields is rough in the extreme, the glass being very thick, roughly groined to shape and glazed with heavy cast calmes of lead. A more detailed description of the materials of the period will be found under the heading of fourteenth-century characteristics in Chapter II and in Appendix C.

By the end of the fourteenth century the workmanship of heraldic glass had made great strides. Stain had come into common use for representing gold, and it was the heraldic glaziers who led the way in such new tricks as abrasion, annealing and insertion, as is shown by the Ashton glass on Plate X. The abrasion of the three Chudleigh lions is remarkable work, and when it is borne in mind that this impalement occurs eight times in the



## A HISTORY OF ENGLISH GLASS-PAINTING

series, thus making twenty-four lion-panes to be cut and abraded by hand, some idea may be gained of the patience exercised by the glazier. The Pomeroy lion is also good work, most dexterous and painstaking. The whole body of the beast, exclusive of the two right legs and tail, was cut in one piece—no light task with the grosing-iron—and, after that, was abraded with an annulet upon the shoulder, a proceeding greatly endangering the safety of so slenderly shaped a piece of glass. And although glass was now thinner and easier to work it was of anything but faultless manufacture, as has been detailed under glass characteristics in Chapter III. Diapers became richer, being generally scratched out of laid matt with a pointed stick, as in the period of transition from Decorated to Perpendicular, but the matt is now much paler and is always stippled, so as to form a mere translucent film upon the glass, whilst the old repeat-patterns of squares and circles give way to flowing lines, winding and wreathing all over the shield after the manner of intertwined foliage. The traced diaper, however, is still found in places, and both the scratched and traced varieties show some attempt to fit them to the shapes they fill. The earliest examples had entirely covered the shield or quartering on which they were painted, only broken by the ordinaries or other charges laid upon them. Later they stopped short of the edge of the shield, a traced or scratched margin around them accentuating its outline. Now similar margins sometimes surround each bearing, as in the Courtenay torteaux (Plate X, fig. 3), and in the Chudleigh impalement on the same plate each ermine spot on the field is surrounded by a separate traced pattern resembling a rosette.

After the expiration of the Perpendicular period these diapers fall somewhat in popular esteem and gradually disappear altogether. Only three out of the ten quarterings in the Royal arms shown on the Frontispiece show any attempt at diapering, and in each of these it is thin and poor. The smaller and more elaborate quarterings of the Renaissance shields were quite rich enough without them and their presence only rendered the heraldry confusing in effect.

## HERALDRY

Not only do diapers disappear during the sixteenth century, but stippled shading, though still in favour for work upon a larger scale, gradually gives way, so far as heraldry is concerned, to washed shadows, either quite level and with the lights wiped out, or laid slightly graduated so as to give rotundity and then left untouched. Bearings, being now rendered by abrasion and occasionally by enamelling, are no longer surrounded by lead-lines except sometimes in the case of the ordinaries. Helmets, crests, mantlings, mottoes and compartments come into use more and more freely as the employment of enamel develops. All the details of heraldic work are subject to the same changes in style and treatment as are the other ornamental features of sixteenth- and seventeenth-century windows. These are fully described in the preceding chapter, whilst the contemporary heraldic glass of Switzerland will be found treated at greater length in that which follows.





## CHAPTER VII. SWISS GLASS.

Reasons for referring to Swiss glass—Early work in Switzerland—The point of departure—Enamels—Miniature glass-painting—Hans Holbein—His work, influence and followers—Lingering Gothic feeling—Carl von Egeri—The Bluntschlis—The contemporary rage for Swiss glass—Types of design—Kabinettscheibe—Wappenscheibe—Standescheibe—The progress towards decadence—Ostentation of donors—The Swiss schools and their leaders—Text-letters—Detailed characteristics from 1520 to 1700—Decadence—Low estimation in which the art was held in the eighteenth century—The Vincents—Modern collections—Minuteness of treatment—Modern forgeries.

SOME few words of explanation may not be out of place to account for the inclusion of a chapter upon Swiss stained-glass in a volume intended, as its name indicates, to deal more particularly with English windows. The reasons are that the essential subject of the book is treated primarily for the information of collectors of old stained-glass, that Swiss glass is held in the highest possible esteem by all such collectors, and, finally, that although the works of the Swiss glass-painters of the sixteenth and seventeenth centuries have been exhaustively reviewed on the Continent, where a large number of French and German writers have sedulously devoted themselves to their study, no English book upon Swiss glass seems to be in existence.

The subject is far too extensive to be dealt with in detail here; but perhaps a brief survey of the history of the Swiss schools of glass-painting, even though confined within the limits of a single chapter, may serve to give some introductory information of interest, and possibly of utility, to the collector. To those desirous of entering more deeply into a study of the exquisite works of the Swiss glass-painters of the sixteenth and seventeenth centuries the bibliography given under Appendix A will prove of service.

In common with English glass—and indeed with stained-glass throughout Western Europe—Swiss windows of the late fourteenth century showed a tendency towards design upon a smaller and smaller scale. Up to that time their development had proceeded



## A HISTORY OF ENGLISH GLASS-PAINTING

upon the same lines as Gothic windows displayed elsewhere, and no remarkable features distinguish the earlier windows in Switzerland from similar works in neighbouring states. The great rose window in the church of Notre Dame at Lausanne, painted in 1290, does not differ appreciably from French windows of the same period, and the same may be said of some contemporary windows at Wettingen. They are fine windows, with all the gorgeous colour that distinguishes thirteenth-century glass in England or France: but the work is no less clumsy and strong; the glass—principally pot-metals—is heavy and lacks transparency, and the variety of colour is limited—characteristics which mark thirteenth-century glass anywhere else. Yellow stain came into use in Switzerland at about the same time as it did with us, and examples of fourteenth-century windows at Königsfelden, near Brugg, (Aargau), at Münchenbuchsee, Blumenstein, Köniz (Berne), Cappel, Oberkirch, and Fribourg show the same large subject panels, treated with the same yellow stain and pot-metal colouring that we are accustomed to in England.

They are richer than earlier work, just as English glass-painted at the end of the fourteenth century is richer than that which preceded it, and this increased richness is brought about in Switzerland by the same course of evolution that produced the same effects with us. Window openings were becoming smaller, for one thing, and the subjects they contained became smaller with them, as a natural consequence. Subject compositions crowded with details, more or less pictorially treated, and still further crowded by figures of donors and their coats-of-arms, replaced the arrangement of single figures in tiers, and with every additional figure, every added ornament, every reduction in size, the glass-painter and glazier learnt new tricks of concentration, compressing and re-arranging their subjects to avoid the tendency towards confusion resulting from such a wealth of new details and ornaments.

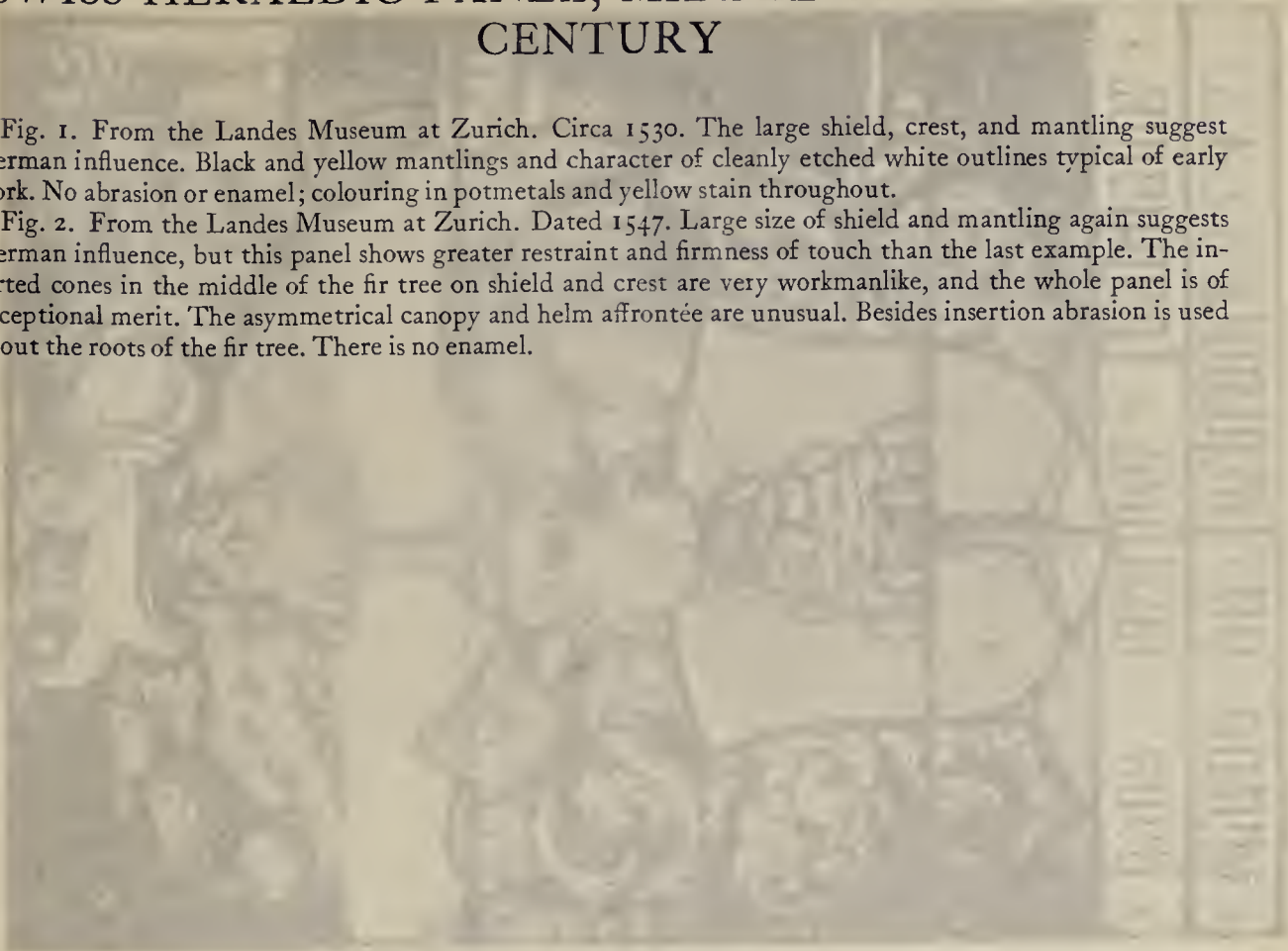
The smaller the subjects grew the more the lead-lines asserted themselves. To the glass-painter of the thirteenth century they had mattered little. The beauty of his crudely-coloured, densely toned glass was enhanced rather than marred by their strong black

## PLATE XXI

### SWISS HERALDIC PANEL, MIDDLE OF SIXTEENTH CENTURY

Fig. 1. From the Landes Museum at Zurich. Circa 1530. The large shield, crest, and mantling suggest German influence. Black and yellow mantlings and character of cleanly etched white outlines typical of early work. No abrasion or enamel; colouring in potmetals and yellow stain throughout.

Fig. 2. From the Landes Museum at Zurich. Dated 1547. Large size of shield and mantling again suggests German influence, but this panel shows greater restraint and firmness of touch than the last example. The inserted cones in the middle of the fir tree on shield and crest are very workmanlike, and the whole panel is of exceptional merit. The asymmetrical canopy and helm affrontée are unusual. Besides insertion abrasion is used about the roots of the fir tree. There is no enamel.





SWISS HERALDIC PANEL: MIDDLE OF SIXTEENTH CENTURY

The panel is a rectangular piece of wood, possibly oak, with a smooth surface. It features a central heraldic shield, which is divided into four quarters. The quarters contain various symbols, including a cross, a lion, and a bear. The shield is surrounded by a decorative border, which appears to be a simple line or a series of small, repeating motifs. The overall appearance is that of a well-preserved historical artifact.

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Fig. 2



Fig. 1





## SWISS GLASS

outlines, and the stiff drawing and archaic designs of the period presented no obstacle to so pliant and yielding a material as narrow strips of lead. With the advent of the grisaille window the lead-lines had served as the geometrical base on which the floral ornament was planned, and in large figures, placed upon the grisaille as background, they were almost invisible between the sharply contrasted white and pot-metal colour which went to make the favourite colour schemes of the Decorated period.

But with the advent of the secular window, and the consequent great increase in the use of heraldry for centre-pieces, difficulties began at once—difficulties which only increased when the shields, never large, shared in the general tendency towards diminution of size. Matters were only made worse by the fact that whilst the shields were growing smaller their blazonings were becoming more intricate. Beasts, birds, flowers and fishes, weapons, tools and implements, symbols and emblems of every conceivable form were pressed into service to supplement the older, simpler arrangements of ordinaries and sub-ordinaries, and were used in greater variety and profusion with every addition to the ranks of those entitled to bear arms. The early fourteenth-century glass-painter had hailed the “science” with delight. The brightly-tinctured, simply-glazed shields were just what he wanted to give a splash of colour and interest to his grisaille, his canopies, bases, or tracery openings. Such shields as *Argent, a cross gules; Ermine, a bend azure; Argent, on a bend sable three horse shoes*, or, as in the Ferrers arms (Plate VI), were easy to paint and glaze, and had an excellent effect in glass; but when, in the late fifteenth century, the glass-painter was confronted with the problem of getting six or eight quarterings, crowded with fers-de-moline, estoiles, lioncels, martlets, fleurs-de-lys, or what not, into a shield seven inches high and wide, he must seriously have doubted the wisdom of his forefathers in seizing upon heraldic work with such whole-hearted zeal and have been sorely tempted to give up the wrestle with his lead-lines in despair.

Under certain limited circumstances already detailed four methods of avoiding them were at his disposal. He could abrade



## A HISTORY OF ENGLISH GLASS-PAINTING

“flashed” glass, could use yellow stain, and though insertion was difficult and annealing not altogether satisfactory they helped him considerably. The range<sup>1</sup> of colours to which they applied was limited, but, for that matter, so was the number of heraldic tinctures. So far as England and France are concerned these four methods sufficed—at least for ecclesiastical work—until the seventeenth-century days of decadence.

In Switzerland, however, the national genius, minutely pains-taking, evolved something entirely new in glass—stained-glass windows in miniature. The use of secular subjects, painted on a small scale for purely domestic purposes, was becoming prevalent all over Europe by the sixteenth century, but in Switzerland it ousted every other type of window. Quite early in the century Swiss panels tended to become confined to one or two well-marked classes of design, and except in minor details these classes persist, varying but little, throughout the next two centuries. They were very small in size, a fair average being about thirteen inches high by nine wide, and as they were exceedingly rich in design it will readily be seen that with such minute work the elimination of lead-lines became a serious necessity. Another means was sought of inserting local colour without them, and the process of painting in coloured enamels was added to the methods already in use. The method and its drawbacks have already been described in Chapter IV. Everywhere, excepting in Switzerland, its use may be regarded as a hall mark of decadence, but the Swiss glass-painters brought it to such an unrivalled pitch of perfection that it forms the crown and glory of their national art. Elsewhere enamels and decay go hand in hand, but the patient Swiss painter experimented and experimented, again and again, until he had perfected the method, and at this day his best enamels, fired three hundred years ago, have all the richness and durability, combined with tenfold the delicacy, of their contemporary pot-metals.

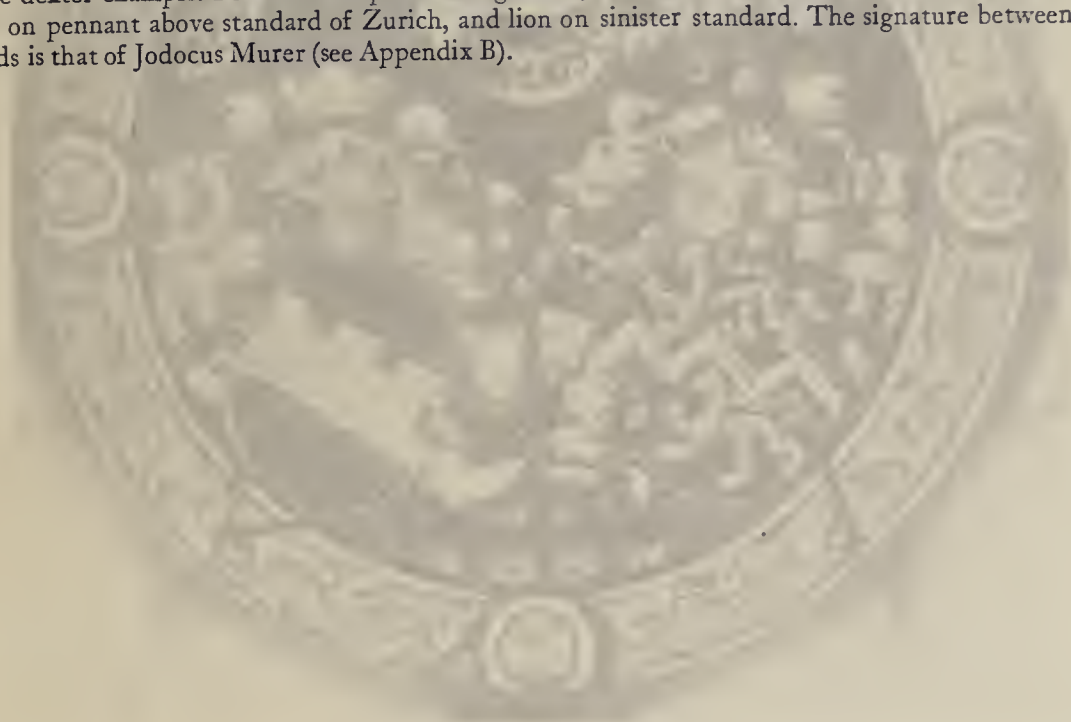
It is when we come towards the end of the fifteenth century that we find the Swiss glass-painters drawing ahead a little of their foreign rivals. Their work begins to be very good indeed. Their designs show landscape or architectural backgrounds instead of

## PLATE XXII

### SWISS HERALDIC MEDALLIONS

Fig. 1. From the Landes Museum at Zurich. Dated 1540. Commemorative of a marriage between the families of Luternau and von Diesbach. The border, in white and stain, though richer in detail, is not unlike English Tudor work in treatment. The arms are coupled, not impaled, and the helms and crests face inwards instead of to the dexter, as in English heraldry. The treatment of mantlings, in black, white and yellow, is masterly. Note the treatment of hair in the sea-lion's mane, the crest of the sinister shield. No enamel or abrasion.

Fig. 2. From the Landes Museum at Zurich. The Cantonal arms of Zurich, with, in base, the smaller shield of Escher. Note that the repeated shields of Zurich are arranged symmetrically, the bend being a bend sinister in the dexter example. Potmetal diapered background; no enamel; abrasion used on bases of columns, small cross on pennant above standard of Zurich, and lion on sinister standard. The signature between the Zurich shields is that of Jodocus Murer (see Appendix B).





## SWISS HERALDIC MEDALLIONS

The medallions are of silver, and are of the size of a shilling. They are of the shape of a circle, and are decorated with a heraldic design. The designs are of various kinds, and are often very elaborate. The medallions are often found in the hands of the Swiss people, and are often used as a form of currency. They are also often used as a form of decoration, and are often found in the hands of the Swiss people. The medallions are often found in the hands of the Swiss people, and are often used as a form of currency. They are also often used as a form of decoration, and are often found in the hands of the Swiss people.

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PLATE XXII



Fig. 1



Fig. 2





## SWISS GLASS

flat diaper-patterns, thus anticipating a feature that with us does not appear before the sixteenth century. Their glass was better, and abrasion came to be practised more frequently and more adroitly than elsewhere, but the windows, though always diminishing in size, were still windows unmistakably upon the larger scale.

When the Renaissance came to us in the early sixteenth century, and glass-painters in France and England reverted to larger designs than ever, the Swiss painters kept on as they were, making their subjects smaller every day and lavishing the more care and labour upon them the smaller they grew. Again anticipating us, they evolved our sixteenth-century domestic window years before it came to us—glazing in plain squares of sheet glass with a coloured centre-piece for adornment. But whilst our centre-pieces were only coats-of-arms or the like ornamental details, carefully treated it is true, but planned to the scale of exactly similar details in the larger windows of the churches, theirs were tiny windows complete in themselves. Instead of copying shields to a scale that would have served equally well for bases or tracery-pieces in ecclesiastical work, the Swiss painters of domestic glass executed whole windows in miniature. Canopy, subject, coats-of-arms, inscriptions—everything that went to make a large window was represented, exquisite and tiny, merely for panels to be used as centre-pieces to plain domestic windows.

The earliest examples occur in the second half of the fifteenth century. There is a series in the choir of the Minster at Berne of this period, and very fine they are, with a calm brightness of colour all their own. Their subjects do not as yet contain more than single figures of patron saints or coats-of-arms of donors, and this comparatively simple treatment does not develop further until late in the first quarter of the sixteenth century, at the period marked by the Reformation. Perhaps this event, bringing as it did the adornments of the church into disfavour, may have been partly responsible for the attention henceforward lavished by glass-painters upon windows for purely secular edifices.

One of the earliest masters, and one who did more to make



## A HISTORY OF ENGLISH GLASS-PAINTING

miniature glass-painting the national art of Switzerland than any other man, was Hans Holbein, the Younger. Born at Augsburg, (Bavaria) in 1497, he came to Basle in 1515, and during his eleven years of residence in that town devoted much attention to cartoons for glass. His Stations of the Cross show the earliest attempt at serious compositions upon the smaller scale, and he also did a large amount of heraldic work, secular subject panels, and the like. The little Virgin and Child on Plate XXV is a good example of his work, the pronounced Renaissance details of the canopy being remarkable at so early a date as 1519. His cartoon for a domestic panel on Plate XXXII provides another example of the lead given to smaller men by the work of a master. Figures such as these two supporters are the earlier prototypes of the work of Carl von Egeri and his successors.

None of Holbein's contemporaries had as yet emancipated themselves from Gothic traditions. Their earliest panels are essentially Gothic, though they present certain ornamental details—especially diaper patterns—that do not in the least resemble anything in English Gothic design. The background to the panels on Plate XX, for instance, hardly strikes one as being of Gothic design, but the very presence of a diapered background stood for a Gothic feature in the South of Europe. There is, however, no doubt about the figures in fig. 1. They are Gothic enough, and so is the white canopy with its flat arch and the little buttress weatherings acting as capitals to the columns that sustain it. So are the steeply arched crown and the tessellated pavement, uptilted by its queer perspective. By comparison with this little composition, Holbein's Virgin seems at first sight to be Renaissance work of a very settled type. The circular shafts, the leafy capitals, the inverted festoons that form the arch with the amorini, the little landscape background, all are Renaissance to the last detail. But the figure is Gothic in its slenderness, and, beyond all, most businesslike Gothic in its workmanship. The coloured robe has some late amplitude, but the sleeves, the corsage, the crowned and veiled head, the flat disc-like halos, all show enough lingering Gothic influence to date the panel as transitional.

# PLATE XXIII THE EARLIEST TYPE OF SMALL SWISS PANEL

These two examples from the Landes Museum at Zurich are evidently by the same hand and present a remarkable number of similar characteristics. The flat arch, angular shaftings, simple spandrels, and diapered backgrounds are all evidences of very early date. So is the absence of enamel and the rare occurrence of abrasion, the only instance being in the shield and crest of fig. 1. All other colours are potmetal or stain. The design of the etched diaper on the robe in fig. 1 and the similar diaper traced in black around the border of the robe in fig. 2 both point to an early date, as also does the grass at base of the latter panel. The badge of a fish and bird at top of each panel is apparently the painter's mark.



Fig. 1



Fig. 2



THE EARLIEST TYPE OF SMALL SWISS TANK

[illegible]



PLATE XXIII



Fig. 1



Fig. 2





## SWISS GLASS

The time for the Renaissance had arrived, and Holbein was the very man to lead the way in the new style. Although Christoph Murer's panel with the standard bearers on Plate XX is probably later than his Virgin (Plate XXV), it is immature and youthful work. The ablest of the painters followed Holbein's lead, and the style of glass design henceforth was Renaissance in its entirety.

Following in his footsteps came a number of very able draughtsmen and painters, amongst them being Tobias Stimmer and Daniel Lindtmeyer of Schaffhausen, Hans Burgkmair of Basle, and the brothers Christoph and Josias Murer of Zurich. Carl von Ageri or Egeri and Niclaus Bluntschli, both natives of Zurich, achieved great success in the treatment of small panels after the manner set by Holbein, and Zurich became the best known centre for glass-painting in all Switzerland, so that the recognized painters of the Zurich school outnumber those of Schaffhausen, the next in order of prosperity, by nearly four to one.

Carl von Egeri, though less famous than his great exemplar, the younger Holbein, was a man of parts. Belonging to an old Zurich family, he assumed his rights of citizenship in 1536, married two years later, and in 1547 was elected a councillor of the town. He was a prosperous citizen, moving in good society—*les esprits les plus cultivés de la ville*—much as other prominent artists of the Renaissance were wont to do. Eight windows in the town hall at Stein-am-Rhein are his work and represent the different capital cities of the eight early cantons. Supporting the shields of the towns are figures of men-at-arms drawn with great swing and vigour. The two supporters of the Glarus shields on Plate XX, fig. 2—one with a halberd and one bearing aloft the standard of the canton—are excellent examples of his more vigorous work. Their costumes and pose, all slash and swagger, mark a startling departure from the resigned ascetic figures hitherto in favour.

Nothing at all like them had ever been seen before, and they promptly set a new fashion in glass—a fashion so popular that by the second half of the century these little swashbuckling figures of arbalestriers, halberdiers, musqueteers and swordsmen are found



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everywhere throughout Switzerland, almost to the extinction of any other masculine type, whatsoever. As a rule, however, von Egeri was happier in little biblical subjects, often after the style of Holbein's engravings. There is a fine example bearing his signature, C.V.E., in the library at Aarau. It contains a figure of St Regula, the guardian saint of Zurich, standing under an arched canopy and holding her head in her hand. Behind her, visible between the columns supporting the canopy, is a beautifully painted little landscape, representing the town of Zurich and its surroundings.

These delicate landscapes are characteristic of von Egeri's work. A series at the convent of Muri, executed in 1557, display a wonderfully delicate colour treatment which recalls the pale iridescence of mother-of-pearl.

Niclaus Bluntschli, who was born in 1518, worked at Zurich in partnership with his brother Henri. His work lacks the delicacy and fine detail of that of Carl von Egeri, but it is bolder, and his subject compositions are more cleverly schemed. His drapery is especially fine, showing a strong Düreresque influence, and his enamels are exceptionally good. They are marked by a blue of unusual intensity, a cold and not very transparent green, and a red, generally used in such small passages as the flesh tints of cheeks or lips. Whilst most of his contemporaries used the Classic architecture of the period to frame their compositions, Bluntschli breaks new ground, introducing bizarre and grotesque elements here and there. Sculptured capitals, entirely different from the classic forms so much in vogue, masks, caryatides, monsters like hermes, male and female, strangely posed and costumed, give his subject framings a quaintness all their own. Witness the panel on Plate XXIV, with its figures of lamias perched on the pilasters of the simple canopy, and the grinning satyr masks under each coat-of-arms, close to one of which his monogram NB may be seen in the lower right hand corner of the panel. Bluntschli was one of the first Swiss painters to use white obscuring matt, in his case with a greyish tone and fired almost to semi-transparency.

So great was the admiration excited by the works of Hans Holbein and his immediate successors that stained-glass reached

## PLATE XXIV

### SWISS MARRIAGE PANEL WITH RELIGIOUS SUBJECT

A typical example of Niclaus Bluntschli's work, very similar to the series formerly in the Cistercian Abbey at Daenikon. Note the long flat entablature in place of canopy, and the lamias or empusas behind each capital of the shafting. The necessary leads are schemed to cross the landscape background beside tree trunks and wall of building on the left in a very skilful manner. The painter's signature "N.B." (see Appendix B) appears in the lower right-hand corner. Enamel begins to be used freely, whilst abrasion is confined to coats-of-arms.





# THE TWIN L-PLATEFORMS OF A SWISS MARRIAGE PANEL WITH RELIGIOUS SUBJECT

The panel is a rectangular wooden structure, approximately 1.5m high and 1.2m wide. It is divided into two main sections by a central vertical axis. The upper section features a large, ornate initial 'M' in red and blue, with a figure seated within its loops. The lower section contains a smaller, more delicate figure, possibly a saint or a religious figure, standing and holding a staff. The background of the panel is a light-colored wood, and the figures are painted in a style characteristic of the 15th century.

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Hans von Elm zu Schuffen und Barbara von Elm  
geborene von Himmil im Segmache 2 J. 559





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an unparalleled height of popularity in Switzerland. No glass is more sought after at the present day, and no specimens of any other schools realize such prices in the sale-rooms; but, even so, it is difficult to appreciate what a rage there was for these little panels at the time of their execution. Never a prosperous burgher but must commemorate his marriage in one of them; never did a guild of tradesmen elect new officials without recording the event by commissioning a stained-glass panel; never a town but presented its arms done in glass over and over again to the town halls of its neighbours. Lucerne kept a special column in its books of expenses for entries of such gifts alone, and glass-painting flourished as never it had flourished before and as it has never flourished since.

The treasured craft was passed down from father to son, from son to grandson, for two long centuries. To give one instance only, signatures of no less than six generations of Spenglers of Constance have been identified, and may be seen with others in Appendix B.

Just as the Dutch went mad about bulbs, so the Swiss went mad about stained-glass. In other countries it was a jest at their expense. Fischart, an imitator of Rabelais, predicted in his *Pantagrueline Prognostication* for 1574 "an abundance of water at Venice, of fir-cones in the Black Forest, of lions in Libya, of crocodiles in the Nile, of snow in the Alps, of whales in the Arctic Sea, and of glass-paintings and glass-painters in Switzerland."

The earliest enamels came into use about the middle of the sixteenth century, first a full blue, and then a purple inclining to violet. The earlier greens were produced by the method mentioned as being in use among English glass-painters—enamelling the glass blue on one side and staining it yellow on the other—but a particularly fine enamel of that colour had come into use by the end of the century. Further, the Swiss craftsman invented a clear brown—quite distinct from the opaque matt hitherto employed—which he used for landscapes and other neutral tinted details, and a rather brickish but also clear red served him for flesh tints. Bright pot-metals and abraded ruby were used in conjunction with the enamels



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and stain until the end of the seventeenth century, when the windows fell out of fashion, the art became decadent, and soon afterwards died altogether.

Though time, wars, and carelessness, combined with the fragility of the material, have destroyed vast quantities of these little panels, many thousands have come down to us, and no variety of glass is more prized by the collector. The general appearance of the later panels varies greatly, but from many designs one or two favourite types emerge, and remain popular throughout the sixteenth and seventeenth centuries. Such types, only slightly changed to suit the circumstances of each case, were used over and over again. The most frequent perhaps is that which commemorates an alliance between two burgher families. In the base on either side of a dais or pedestal are the coats-of-arms of the marriage, above which shields stand little figures of the husband and wife (Plate XIX, fig. 1). Figures and shields stand within a frame of upright pillars, enriched with flutes and foliated capitals and vases, supporting a coloured canopy generally composed of two large volutes in the form of a flattened arch. In the spandrels above are little subjects in white and stain, sometimes religious, sometimes warlike, sometimes rural or of a sporting character, and in the base below the arms an inscription in Gothic characters sets forth the names and places of birth of husband and wife, generally accompanied by the date and sometimes by the artist's signature. The designs vary in detail, but the essentials—the inscription and coupled coats-of-arms (which, by the way, are rarely impaled, as in England and France) remain constant. Sometimes a single standing figure—often one of the favourite little swashbucklers—supports the shields (Plate XIX, fig. 3), and sometimes two of them supplant the husband and wife. So great was the passion for this particular type of figure that in nine cases out of ten the husband himself, honest burgess though the inscription pronounces him to be, must have the painter dress him out in full fighting trim—a sword, or sometimes two, an arquebus, a halberd or linstock, baldric and dagger, slashed breeches and feathered slouched hat complete—a reckless freebooter cap-à-pie. The abandoned air of the thing is aided in a vast majority of

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cases by the wife meekly handing him a stoup of liquor of some sort; but none the less he is a swashbuckler with a regard for the proprieties, for the variously spelt inscriptions invariably refer to the lady of his choice as *sein ehgemahl* or *sein Ehefrau*—his “lawful” wife. Sometimes this assertion of respectability becomes a trifle laboured, as in an inscription upon a panel in Mr Grosvenor Thomas’s collection which refers to eleven sons and daughters as the donor’s “lawful children.”

In these little figures may be read the whole significance of the national passion for the panels in which they appear. It was a positive craze, as universal throughout the whole country as was the contemporary craze for bulbs in Holland, and both tulips and stained-glass testify to the same thing—the rise to prosperity of a strong and wealthy bourgeoisie, with money to spend upon the gratification of a taste for beauty. It was not only the towns that made presents of stained-glass panels each to another. The trade guilds, the hereditary nobles, and the private citizens followed the same custom, adorning their homes and council-chambers and those of their neighbours with their coats-of-arms and portraits, exchanging them as tokens of amity and as souvenirs of the giver. Hitherto it had been almost a lordly privilege to keep glass-painters in employment. Now, thanks to the smaller size of the windows, stained-glass came within the reach of Stadt-Councillors Hans and Heinrich as well as of Freiherr von Diese and Mark-graf von Das, and the worthy burgess took care that none of his importance was lost through any reticence upon the glass-painter’s part. So far as draughtsman’s skill could compass it, his “lawful” wife should look as meekly and respectfully towards him as any dutiful lady to her lord, and certainly no hereditary noble of the bluest blood could be painted in more warlike guise, be more slashed and puffed and ruffed and defiant than he. Untitled burgher though he might be in real life, in his glass portraits he was Somebody.

The French call these little marriage records *vitreaux d’alliance*, the Germans *Kabinettscheibe*, doubtless from their size and purely secular nature.



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Panels which were more definitely heraldic in character form another class, sufficiently marked to have a distinctive name—*Wappenscheibe*—attached to it. This armorial glass, however, varies more in general design than did the *Kabinettscheibe*. A form commonly in use is a circular medallion, in some earlier cases with a single shield surrounded by a wreath of arabesques, resembling the wreaths round English Tudor medallions dating from a quarter of a century later. But by the time the Tudor medallion had developed with us Swiss work had passed on into something far more intricate, as may be seen on Plate XXII, fig. 1. Later the wreath went entirely, and the coats-of-arms and their supporters were surrounded in its place by an arched canopy with rich backgrounds, sometimes diapered on pot-metals as in Jodocus Murer's rendering of the Escher arms on Plate XXII, fig. 2, and sometimes treated with the familiar distant landscape seen through the interstices of the architecture.

The circular medallion, though much in favour, is anything but universal. Where the oblong pane takes its place a canopy is usual, and the shield or shields are sometimes held by an angel, a patron saint, a representation of some classic or mythological personage, or by some heraldic bird or beast, all such supporters being comprised within the heraldic term "tenants." An heraldic panel now in Trinity College Chapel, Oxford, has for its tenants the archangel Gabriel and a female saint holding a sheaf of arrows—possibly meant for St Ursula. The inscription has disappeared, but the two figures are probably the donor's patron saints. This panel would appear to date from early in the sixteenth century. In instances where no "tenant" sustains the shield the crest and mantling show a tendency to become exaggerated, almost entirely filling the space between the flanking columns that support the canopy, as in Plate XIX, fig. 2. It is worthy of remark that the heraldry of Swiss glass is very unreliable, being apparently bound down to accuracy by no such stringent rules as obtained in England. Symmetry seems to have been of more importance than heraldic regulations. Beasts, birds and fishes face to dexter or to sinister at the designer's fancy, and even the one-sided ordinaries, such as the

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bend and canton, are readily reversed to accord with the painter's desire for a symmetrical arrangement.

A marked variety of heraldic panel is that commissioned by the members of trade guilds or town councils in their corporate capacity. They are generally of larger size than the more familiar examples of the type, but they present the same variations in shape, some being square or oblong and some true circular medallions. In either case the arrangement consists of a central feature, which is sometimes the coat-of-arms of the guild or town, and sometimes, in the case of a trade corporation, a little subject panel showing its members about their occupation. This central panel is surrounded with smaller ones, containing arms and names of each individual member. In the oblong examples these smaller shields range round the top, bottom and sides of the central subject; and in the circular medallions are placed around the outer circumference, their points towards the centre, the arms of the Master or Warden occupying the place of honour at the top. Examination of the shields gives a hint as to the casual way in which these worthy burgesses came by their coats-of-arms. Half the shields in a panel belonging to a shoemakers' guild will show boots or shoes as bearings; members of the butchers' company make like display of knives and cleavers; the furriers delight in vair and ermine. Palpably such arms were assumed at the bearer's choice. They pleased him like his trade-mark or the sign over his shop, and, honest man, he flaunted them bravely.

Allied to the *Wappenscheibe* are the *Standescheibe*—so closely allied indeed that it seems unnecessary to discriminate between the two. To this class the panels presented by town to town principally belong, and, like nearly all the other panels under consideration, they have a way of confining themselves in general design and arrangement to a limited number of well marked types. The tenant or tenants nearly always hold banners displaying the town arms, in addition to the blazoning upon the shield which occupies the centre of the composition. Sometimes the shield itself is entirely absent, and the tenant becomes a standard-bearer, his banner flying either from a long staff or more commonly from



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quite a short one held in one hand at arm's length—an awkward posture that always gives a grotesque air of effort to the standard-bearer's pose. Of the two banners on Plate XX, fig. 1, one certainly has the long form of shaft. The other is not so clear, but whether long or short the design is too crowded to permit of its being held at arm's length, and the appearance of effort is absent. This panel is by Christoph Murer, and, judging from the simplicity of the canopy, the stiffness of the figures, and some weak drawing about the hands and faces, is probably a youthful example of that painter's work. A standard-bearer holding his banner at arm's length is on the right of Carl von Egeri's panel (Plate XX, fig. 2), and another example is shown on Plate XIX, fig. 3. The bad perspective of the pavement in this last example, the white flat-arched canopy, the absence of enamels, and character of the damascened Niello-like diaper of the background are all evidences of early work, the last named rarely appearing subsequent to 1520. A good example—very similar to the foregoing in all respects, except with regard to the background diaper, which is more broadly treated—and bearing every indication of being even earlier in date may be seen at Trinity College, Cambridge.

Whether classed as Kabinett, Wappen, or Standescheibe, or whether of a design not to be ascribed with any degree of accuracy to any of these three classes, Swiss miniatures were almost entirely heraldic from beginning to end. In the earlier examples the heraldry plays a minor part, the donor's shield occupying a corner of the panel where it could not interfere with the main subject, as in Hans Holbein's figure of the Virgin and her Child. The subjects were for the most part religious and the inscriptions short and unobtrusive. But just as the Swiss panel is a complete window in miniature, so the history of Swiss glass epitomizes in two centuries the whole history of stained-glass design. The early shields grow larger; figures of donors, their wives and families gradually oust the sacred compositions; the short and simply-worded inscriptions lengthen in an extraordinary manner. Even their lettering follows in some sort the evolution of lettering in our larger English windows. Many of the earlier inscriptions are

PLATE XXV  
AN EARLY SWISS RENAISSANCE PANEL

By Hans Holbein. Details purely Renaissance, but treatment remarkably Gothic in feeling throughout. Renaissance canopy in white and stain; background landscape in matt and outline upon potmetal. Figure of Virgin essentially Gothic in treatment. No inscription beyond the date. Coat-of-arms not too conspicuous. No enamel and only two examples of abrasion, where the Virgin's yellow hair overlies the ruby rays. Note primitive character of Roman lettering in date.















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written in a capital text not essentially unlike our "Lombardic" lettering of the thirteenth century. From the middle of the sixteenth century German text, almost exactly similar to our English black lettering, takes its place. Fifty years later Roman capitals come into use, but for a while seem to be confined in general to the explanatory text on flying scrolls that accompany biblical subjects, the memorial, dedicatory or commemorative inscription at the base of the panel still being written in black letter (Plate XVIII, fig. 4). Then, at the end of the seventeenth century, Roman small text and decadence arrive hand in hand. Compare the panel from Rhathausen on Plate XVII, fig. 1, which bears date 1702, with Hans Holbein's Virgin, or Christoph Murer's early standard-bearers, and the beginning and end of Swiss glass is seen at a glance. Holbein's panel is inscribed with a date, no more; the Murer panel has not even that much lettering: but the Lady Maria Cornelia Antonia Russconin needs four long, crowded, ill-written lines to set forth her name and office to her satisfaction. The Holbein shield has one simple bearing on it, the Murer shields, richly diapered, have but one double eagle between them, and in neither panel are the shields embellished with any mantling or framing whatsoever; whilst in the later example the shield divided transversely (fesswise) into three parts displays an eagle, a lion, six trefoils, and three bendlets, and is moreover set in the midst of an assemblage of flowers, fruit, winged heads and hideous mantling that by a constant succession of minor shocks certainly do prepare the eye in some degree for its appalling and essential ugliness. Christoph Murer's figures fill their panel, the canopy above them occupying its proper position as framework, and there is no base whatever. In the Lady Maria Cornelia's window the base occupies a third of its whole area, and the canopy more than half of what remains. Hans Holbein's beautiful little Virgin fills the whole space under her canopy, and, though sweet and modest, is unmistakably the centre and subject of the composition. It is positively a shock to discover on close examination that she is again in some sort the subject of the Russconin panel. Still holding her Child in her



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arms she stands under the left hand or dexter canopy. She is smaller than the clumsy amorini sustaining the inscription. Any one of the letters in the inscription is larger than her head, and there is room for her whole figure and her Son's four times over on the central shield! Such ostentation on the part of a donor is sufficient indication of decadence, even though no other evidences presented themselves; but from the artistic point of view the vital difference between the later panel and the earlier two is that whilst the Holbein Virgin is graceful, the Maurer standard-bearers stiffly vigorous, the drawing of this wretched thing has neither strength nor grace. Badly arranged and badly executed, it is as limp as seaweed and as floppy as tripe.

But the immediate successors of Holbein perpetrated no such atrocities as this. Consequent upon the success of the von Egeris, the Bluntschlis, and their Zurich contemporaries, other schools arose all over Switzerland, the best known being at Berne, Basle, Schaffhausen, Zug, Freiburg, Solothurn, Constance and Lucerne. At Schaffhausen Tobias Stimmer and Daniel Lindtmeyer at a comparatively early date did excellent work as designers. Many of their cartoons are still in existence, and two examples are given on Plate XXXII.

Daniel Lindtmeyer, the son of a glass-painter, Felix Lindtmeyer of Schaffhausen, married the widow of Hans Werner Kübler, himself a draughtsman, and her son, Werner Kübler, studied first under his stepfather and afterwards under Max Grimm of the same town. Little warlike figures in the style of Carl von Egeri appear in a great number of the Lindtmeyer cartoons, and under his hand become more vigorously alive than ever.

Many of Tobias Stimmer's cartoons were executed in glass by his younger brother, Abel, another member of the Schaffhausen school. Yet another glass-painting family in the same town were the Langs, of whom Daniel and Hans Caspar were the best known members.

Hans Rudolph Manuel (surnamed Deutch) heads the Basle glass-painters, and among the draughtsmen of that town are Urs Graf and Nicholas and Eugene Manuel. George Wannenwetch,

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worked there in 1580, and as late as 1760 one G. A. Wannewetch, of that town, is mentioned—though inaccurately—as being the last of the Swiss glass-painters.

Andreas Hör, of St Gall, whose monogram, A. H., was for many years attributed to Augustin Hirschvogel, of Nuremberg, was another painter who attained considerable distinction from the middle of the sixteenth century. His draughtsmanship is occasionally faulty, but his workmanship approaches perfection, especially in minute details. His colouring is clearer than is usual among his contemporaries, and his white glass is treated profusely with yellow stain, a trait especially marked in canopies and backgrounds. His heraldic work has a resemblance to Nuremberg glass owing to the exaggerated size of the crests as compared with the shields they accompany. His canopies, generally speaking, are ill-proportioned. Either the arch or entablature is too heavy for the slender columns which support it, or the yellow columns are too laboured and clumsy for the trivial weight they carry. But such a minor defect goes for nothing when compared with the tiny delicacy of the subjects within this ill-proportioned frame. In some of his work birds flying above a landscape are so exquisitely treated as to allow of their species being recognized.

Christoph Murer, of Zurich, an example of whose work has already been examined (Plate XX, fig. 1) was a younger contemporary of the Bluntschlis. The windows in the Town Hall at Lucerne are his best known work. Unlike Hör, his canopies are generally dark in colour, a deep ruby prevailing, and their sombre treatment forms a beautiful contrast with the delicate landscape backgrounds seen through their interstices. He was always weak in the drawing of the figure, though his later work (circa 1600) shows a marked advance upon the example given on Plate XX; but at landscapes he was unrivalled. He knew his limitations, and in consequence his are the only Swiss windows in which the backgrounds outvie the figures in importance. He almost confesses that the landscape is the subject of his window, and the figures mere accessories. The treatment he affects is the romantic and picturesque—rugged mountains with old castles perched upon



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them, and deep ravines between. His latest known work—a panel at the Kunstgewerbe Museum at Berlin, painted about the year 1611—illustrates his style admirably. A fisherman and another figure standing by are ostensibly the subjects of the composition, but, as usual, they are mere accessories compared with the all-important landscape in the background. Despite this idiosyncrasy his work was greatly in favour in his own day, so much so that he even executed many panels for Nuremberg, a town always renowned for the work of its stained-glass artists, though for that matter so was Christoph Murer's native town of Zurich.

Good glass was also done at Freibourg, Solothurn, and Zug, though no individual painter belonging to either place attained the fame of the men mentioned above. A list of those best known will be found under Appendix B. Of designers—some of whom executed their own cartoons in glass—the more prominent are Urs Graf at Basle, Hans Sebald Beham, Hans Jacob Dünz, Hans Baldung (surnamed Grien) and Israel van Mecken. Many of their signatures have been identified and will be found in the appendix, amongst them being no less than six of the family of Spengler, of Constance. Though living in the Grand Duchy of Baden and therefore being of German nationality rather than Swiss, their work so strongly resembles that of the Swiss schools and they present so long and interesting a succession of glass-painters in one family that they have been deemed worthy of inclusion in the list.

With so many painters occupied for a period of two long centuries, it might reasonably have been expected that their works would show a marvellous diversity of design and treatment. On the contrary, the vast majority of Swiss windows can be classified with more or less exactitude as belonging to one or other of the types described above. Sporadic variations occur but rarely. Sometimes the later biblical or secular subjects assume a remarkable degree of importance as compared with the heraldic motif of the panel, but not often. A Jesse tree—a tiny and exquisite thing—in the Pierpont Morgan collection deserves mention no less for the beauty of its execution than for the startling novelty of its subject. Occasionally a little battle-scene, similar to those

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commonly occupying the upper spandrels of the canopy, becomes the central subject of the composition. Sometimes scenes of revelry, such as a company seated round a table, take their place; but as a rule the painters were content to work upon the lines of their predecessors and to confine their individuality to the rendering of new details in the designs that had been handed down to them. The earliest examples are distinctly Gothic in feeling, though it is the Gothic of Southern Europe and not the purer style we know. The two panels on Plate XXIII illustrate admirably the character of this earlier work. The simple canopies, in white and stain, have flattened arches resting on angular shafts. The treatment is plain, white and pot-metals glazed together in a workmanlike fashion, and where abrasion does occur it is always upon ruby glass. There are no enamels, of course. Backgrounds are of colour, more or less richly diapered, and the mantlings of shields are attenuated, their scroll-like intertwinings often ending in sharp points. No effort is made at enriching canopy spandrels by more than a spray of leaves in white or stain or some other ornamental feature of like simplicity. Inscriptions are rather irregularly written, at first in black letter, but afterwards in a rude Roman text. Some of the numerals in use, especially 4 and 5, are difficult to recognize at first sight. The 5 resembles an S, as may be seen in Hans Holbein's Virgin panel. The 4 has two forms—the earlier a zigzag like a drunken N, the later resembling a Q with two tails. The glass, though not so thick as most English Perpendicular glass, has a certain weight and body about it, and it was cut with the grosing-iron. The earliest leads before the lead-vice came into use were hammered to comparative slenderness after being cast.

The transition from Gothic to Renaissance was greatly helped by the example of Holbein, and may be said to date generally from about the year 1520, though many evidences of change existed before this. The canopy spandrels receive more attention, little figures of men and beasts taking the place of conventional foliage and flowers (Plate XX, fig. 1). Perspective is rarely attempted except in the case of the tiled pavements, now becoming



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universal, and there it is of the most elementary character. The change to Renaissance once affected, the handicraft improved rapidly, and by 1550 had almost reached its zenith. By this time the glass has become much thinner and more transparent, and design and draughtsmanship are wonderfully improved. The grooving-iron is still in use, but its work is super-excellent, rivalling the results achieved elsewhere by the diamond. The practice of abrasion was much extended, blue, brown and green flashed glass now being manufactured in addition to the original ruby, and examples of insertion occur, as in the excellent little heraldic panel on Plate XXI (fig. 2), where brownish orange fir cones are deftly let into the middle of the green tree which forms the crest and bearing of the shield.

The blue and violet enamels have come to stay, but they are used with judgment, and never to the exclusion of pot-metals where these could be conveniently employed. Landscape backgrounds make their first appearance, but they have not yet ousted the older ones of diapered pot-metals. The panels are well-proportioned; subject, canopy, inscription and shield each sustaining its proper rôle, none of them being so unduly exaggerated as to crowd other features into a subordinate position. The canopy arch becomes flattened and ogival, and its curve is often broken by some central feature, such as a cartouche or mask. The spandrels are much more elaborately treated than hitherto, whole subjects, in white and stain only, occupying the upper angles of the composition. To carry their additional weight and give an appearance of stability to the flattened arch a central shaft is commonly introduced. The central subject panel is all important, the little compositions in the spandrels being kept in a subordinate position by the simplicity of their white and yellow colouring. No trace of Gothic origin now remains unless we except the black-letter text of the inscriptions, which are beautifully written (Plate XXI, fig. 2). All features of the design are rounded Renaissance at its best (though the angular vigour of some of the Daniel Lindtmeyer figures have a quality that suggests earlier influence), and these mid-sixteenth-century panels show Swiss glass at its prime.

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By 1600 some deterioration has set in. The figures are still well drawn and painted—especially in faces and minor details—and the enamels are as good as ever, especially the “copper-green” which now is in common use. But the composition is getting diffuse. The painter could not concentrate his energies on the central subject; enamel painting supplements white and stain in his spandrels; and flanking figures, generally of patron saints, stand on either side, the shafting columns of the canopy being moved inwards to give them room, thus crowding the main subject panel (Plate XVIII, fig. 4). Abrasion, facilitated by the employment of the wheel, is still largely used, but enamels begin to predominate. The painter has fallen in love with them and does not know where to stop. From 1580 he covers much of his canopy work and pavements with little wriggly lines in blue, red, yellow, and violet in the attempt to render streaky marbles, and occasionally he shirks abrasion in their favour. His workmanship is still good, the enamels excellent of their kind, but his judgment is becoming uncertain, and the use of enamels has induced some little laziness in the glazing. Fewer panes are used to make up a panel, and he misses opportunities of gaining good colour effects, sometimes painting his figures on backgrounds of clear glass instead of using landscape backgrounds or the diapered pot-metals which preceded them.

By 1650 decadence has well begun. The canopies are clumsy, heavy things, baroque rather than Renaissance, and the flanking figures have become subsidiary subjects in themselves, hardly less in importance than the central panel. The central shaft, which a century before supported the arch, now often actually stands upon it, dividing the spandrels into two more subject compartments. Sometimes the arch comes down as low as a third of the whole height, two columns below and two above it dividing the panel into six divisions, each with its own separate subject composition. The figures are heavy and clumsy in drawing, and in their small way are the counterparts of our own large and blowsy figures of about the same period. Abrasion is getting too troublesome a business for general use, and is principally confined to such im-



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portant features as the coat-of-arms of the donor, whilst the profuse enamels have almost ousted pot-metals altogether.

By 1700 the story is nearly told. The enamels are muddy, uneven and poor, float stain and flesh red often stand for ruby, abrasion is dead, and pot-metals almost entirely abandoned. The Russconin panel already examined shows most of the faults of the period, but it is only fair to say that the writing of its inscription is below the average, for some of the lettering is still excellent in character, though perhaps a little inclined to flourishes and other pen-tricks inappropriate to glass. What little glass is done is now nearly all heraldic work, and about the middle of the century even that became extinct.

The whole story of Swiss glass is phenomenal—as remarkable as the work itself. Nothing is more strange than this local development of our art, its birth, rise, prosperity, and fall, presenting through two centuries and a half almost precisely the same evidences of vigour and decay as may be observed between the twelfth and nineteenth centuries in France and England.

Many thousands of Swiss panels must have disappeared during the eighteenth century, and it is difficult to say whether neglect or war has been the principal agent of destruction. The Napoleonic campaigns doubtless accounted for a great quantity of vanished windows: the panels were so gay in colour that they would catch the eye of the most uncultured soldier, and so tiny that they were easily carried away. Their fragility and the exigencies of warfare and mountain marches did the rest. But no one regretted them. In Switzerland, as everywhere else, stained-glass at the end of the eighteenth century was a thing of no account. Unbelievable as it may appear, it is on record that the Swiss eighteenth-century glaziers would not take these painted panels in exchange for plain panes of sheet glass of the same size, and even if they consented to do so, it was only to smash up the old panels for the sake of the trifling quantity of lead they contained, in the same way as Master Berry of Salisbury “beate to peceais” the thirteenth-century glass from the cathedral there. Cartloads of Swiss panels, some of them of most exquisite workmanship,

## PLATE XXVI

### FLEMISH MEDALLIONS IMPORTED FOR CENTRES TO ENGLISH SEVENTEENTH CENTURY GLAZING

Fig. 1. From Mr Grosvenor Thomas's Collection. Circa 1580. A circular medallion in outline, matt, and yellow stain, the subject being the sacking and burning of a village by a company of freebooters. Full of vigour, with a landscape background most delicately treated. Diameter,  $9\frac{1}{2}$  inches.

Fig. 2. From Mr Grosvenor Thomas's Collection. Circa 1570. Subject unknown. The headdress of the figure on the right is exactly duplicated at Fairford, where the figure of the prophet Malachi wears one of almost identical form. Diameter,  $8\frac{1}{2}$  inches.

Fig. 3. From Mr Radford's collection. Circa 1560. A very spirited medallion, both in drawing and execution, and in a perfect state of preservation. Diameter, 9 inches.

Fig. 4. From Mr Grosvenor Thomas's Collection. French, circa 1580. A representation of the Trinity. The panel is marked by a preponderance of yellow stain. Diameter,  $8\frac{1}{2}$  inches.

Fig. 5. From Upton Pynes Church, Devon. Dutch, circa 1620. The Crucifixion. Note the two forms of halos, flat and in perspective. Diameter, 8 inches. This medallion forms part of the same series as

Fig. 6. The Agony in the Garden. Both are of late and somewhat debased workmanship compared with the vigour and powerful execution of Nos. 1 and 3.









PLATE XXVI



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6





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were destroyed in this way from the beginning of the eighteenth century till about the year 1820.

The first man to awake to any interest in the subject was one Johann Nikolaus Vincent, a silk mercer of Gressoney St Jean, in Piedmont, who early in the nineteenth century used to visit Swiss fairs in the course of business. In 1816 he bought a panel of glass from a countryman, and thus laid the foundation of what was afterwards the Vincent collection—the most famous stained-glass collection in the world. He died in 1865, but his son Joseph Nikolaus Vincent carried it on until his death in 1890. From 1833 the collection was kept in the Capitelsaal at Constance, untouched by any restorations, but, after Joseph's death, was offered by auction in September, 1891. By that time the interest in Swiss glass had become universal, and the collection, acquired for the most part by trivial payments or in exchange for Johann Vincent's silks, was sold at fabulous prices and distributed all over the civilized world.

Many fine collections are in private possession at the present day, but, as is natural, they are gradually being absorbed into national museums—many of them from time to time being bought by the country of their origin. A large number of varied examples, some of which are very good indeed, can be seen at the Victoria and Albert Museum, South Kensington; and the Musée de Cluny, in Paris, has about seventy more. There are forty-six in the Louvre and twenty-four at the Musée de Sevres. The largest collection in the world, numbering no less than seven hundred panels, is in the National Museum at Zurich, among them being a series of sixty-five panels, formerly in the convent at Rathausen, some of which bear the signature "F.F." of Franz Fallenter, of Lucerne. Amongst them is a "Last Judgment" with portraits of the Reformers, Martin Luther and Zwingli, standing with the damned. The next collection in point of size is at Wettingen, where there are about a hundred and twenty panels. Other Swiss museums contain a fair number. At Basle there are over eighty examples, some in the Historical Museum, some at the Schutzenhaus, and a lesser number in the Public Art Collection.



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The Historical Museums at Berne and St Gall contain respectively eighty and fifty panels, whilst the town halls at Lucerne and Stein-am-Rhein have about sixty each. About twenty panels at Blatten, four miles from Lucerne, are specially interesting as still occupying the openings for which they were designed. They date from 1656 to 1657, the enamels being very clear and good for so late a date. Not only are the panels in their original positions, but they have never been restored or tampered with in any way whatever, so that the evidences they present of date are specially valuable.

A fine series of over seventy windows existed until quite recently in the old church at Hindelbank (canton Berne) but unfortunately the building was destroyed by fire on July 20, 1911, and none of the glass could be saved. The value of the windows destroyed was estimated at £12,000.

As with English glass, so with Swiss—the more enamel the later the date, until the glass-painters got too lazy even for enamel painting. The early painters at the beginning of the sixteenth century abraded flashed glass and used yellow-stain. For the rest they relied on pot-metals, honestly leaded in place, as in the Holbein and Murer panels already examined. The first enamels appear about 1520—first blue, and then, ten years later, a rich violet. With them were associated a clear brown matt and a red flesh tint, neither quite as transparent as the best enamel, but considerably clearer than the earlier shading colour. Abrasion came to be done with a copper wheel and emery powder, producing the gouged-out effect to which reference has been made in Chapter IV. About the middle of the century some attempts were made at green enamel, but it was not added to the painter's palette as a matter of course before about 1600. Then it appears as a fine clear material, floated so heavily on the glass that it resembles the "slip" colour used in china painting. Before this date blue enamel and yellow-stain were used in combination, as with us in England. Combinations of all three enamels and yellow-stain have been known to occur on one pane of glass—and that pane abraded before their application. Practically any range of colours could be

## SWISS GLASS

produced in this way, and whilst the painters held to the pot-metal treatment—which they did to some extent until the eighteenth century, when even enamels were relinquished, and matt and stain alone were used—there was scarcely any colour combination that was not within their reach.

Though the quality of the enamels seriously deteriorated towards the close of the seventeenth century they were used to the exclusion of all other means of colouring. Even abrasion by the wheel was found too troublesome compared with the laying on of colour with a brush, though a few pot-metals were still used where their employment helped the painter out of any difficulty. As with us, float stain took the place of abraded ruby, and the clear blue enamel of the best period came to be replaced by a heavy greyish-toned material, nearly opaque. As the use of enamel developed into abuse, so the glazier's work became more slovenly. In the earlier examples lead-lines were so adroitly schemed that they do not obtrude themselves at all, no matter how large a number of pieces of glass were used. In the Holbein Virgin there are twenty-two of such panes, two of them being abraded. The Murer panel originally had no less than forty, again with two abraded. In neither of these can the leads be said to stare, except where repairs have become necessary, whilst in the Russconin panel, containing only six panes of white glass, with neither pot-metal nor abrasion, they leap to the eye at once. The only thing that could possibly make it poorer in effect was to omit such poor colouring as the enamel gives to the central coat-of-arms. Shortly after this date this actually was done. The laziness and vitiated tastes of the later glass-painters was contented with glass painted only in matt and stain—and the story of Swiss glass was finished.

The art died with the custom of making presents of the windows. A record from Zurich states that only ten such donations took place between 1662 and 1704, and of these one was to replace a damaged panel originally given by the father of the late donor. This in a town where fifty years earlier glass-painters mustered in scores. The last occasion on which the town presented a window with its arms was in 1748, and Lucerne had closed its



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account with the glass-painting fraternity thirty-three years earlier.

It is not surprising that Swiss glass has again reached a height of popularity. It is eminently suitable for the adornment of modern buildings, and its beauty is a thing to set one wondering. Great and little painters alike succeeded in producing miraculously delicate work, and even panels dating from the later days of decadence are things to covet, if only for their tiny workmanship. How tiny that work was cannot be realized until the glass is examined. The painters used a single needlepoint to scratch out their high lights instead of a brush, and even so some of the things they did were marvellous. I have seen a figure less than eight inches high, armed cap-à-pie as usual, and with the sheath of a dagger at its belt ornamented with arabesques surrounding a medallion. The whole sheath was perhaps one inch long by three-eighths of an inch wide at its greatest breadth, and on the medallion were two figures from Holbein's "Dance of Death!" The Holbein cartoon on Plate XXXII shows a frieze five inches long by one inch high containing the "Slaying of the Philistines"—thirteen figures and a horse. Yet there is no appearance of crowding, and the object in Samson's hand is easily recognized as the jawbone of an animal.

Another Samson panel, by W. Spengler, of Constance, in Mr Grosvenor Thomas's collection, shows several separate scenes from the hero's life all scattered about a landscape contained within the expanse of a five-inch pane of glass. One of the more distant episodes is that of turning the fire-laden foxes into standing corn. Samson, his foxes, and most of the corn-field could be covered by a sixpenny-piece, yet each distinct flame can be discerned in the fire tied to the foxes' tails, and the standing stalks of corn in the front rank are separately rendered. Around this subject is a frame of conventional arabesque work in red, green and blue enamel and yellow-stain. In its angles sit four little naked amorini, rather less than two inches high. Each holds a coloured flower in one hand, the blooms being about one-eighth of an inch in diameter, and the tiny things are drawn from the life and are perfectly recognizable!

# PLATE XXVII

## A JACOBEOAN SUNDIAL

From Mr Radford's Collection. Circa 1620. Shape and character of ornament typical of English late Renaissance secular work. Outer border red "float" stain; background next square dial pinkish purple enamel; blue enamel and yellow stain for green leaves. Three holes drilled in pane for attachment of gnomon.













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Such minuteness of detail—a delicacy rather enhanced than diminished when surveyed through even a powerful reading lens—combined with its rich colour and the startling vigour of its drawing is quite enough to account for the present popularity of Swiss glass, and the little panels are as interesting as they are beautiful. They have the quaintness and homely intimacy of our own late Perpendicular work, with the most perfect and consummate workmanship superadded. Their technique at the best period—say about the year 1560—is beyond anything done at any other time and place. Even their glazing—the mere arrangement of their lead-lines, stripped of the additional beauties conferred by enamels, abrasion, and all other details—shows a skill elsewhere unparalleled. Supreme workmanship, truly artistic feeling and design, with great dexterity of touch and treatment, all condensed within limits that can be spanned by the hand—what more can be boasted by any work of art?

A word of warning to the collector. Modern copies of Swiss glass exist in thousands, and many of them being extremely difficult to distinguish from originals are now masquerading as antiques in collections that one would think above suspicion. The impulse that prompted them was often perfectly honest in intent. Perhaps some enthusiastic collector, having a number of good examples and knowing that others in public collections are unattainable, commissions some clever painter to make him copies to complete his series. In the course of time he dies, his collection comes into the auction room, and the whole, originals and copies together, are sold as antiques by an auctioneer who could not tell Swiss glass from any other windows. But besides these, large numbers of panels are intentionally painted as forgeries, with no other intent than to entrap the unwary collector. Some emanate from Switzerland, but far more are made in Germany and France, and they vary from slovenly imitations that one would think could not deceive a child to facsimiles executed with such careful skill and cunning as to render their detection extremely difficult. Most of the hints on selecting for sixteenth- and seventeenth-century English domestic glass will prove of value when examining a doubtful piece,



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while the dates and descriptions given in this chapter may also be of some little service; and on Plate XXXI a rather slovenly forgery is shown pilloried side by side with a genuine panel. The loose drawing and washy shadows of the modern panel distinguish it at sight from the earlier and more honest work. But this is a very obvious example, and it cannot be too firmly impressed on the collector's mind that the ablest glass-painting rascals on the Continent are pitting their intelligence and superior technical knowledge against his opinion, and that whenever he proposes to buy anything that purports to be Swiss glass of the sixteenth or seventeenth century he will be saved a vast amount of expense and disappointment by hiring the wits and knowledge of an expert to aid him in his choice.

## CHAPTER VIII. CORROSION.

Corrosion a sure evidence of antiquity—Its puzzling manifestations—Durability of glass—Its composition—Faults of mediaeval materials—Causes of decay—Its appearance—Holes and patina—Earliest glass the most durable—Fourteenth- and fifteenth-century corrosion-holes—Their appearance under the microscope—Exterior influences—Transmitted decay—Yellow stain protective—Seventeenth-century patina—Artificial imitations—The microscope a sure test.

REFERENCE has been made again and again in these pages to the corrosion of glass, and the important part it plays in deciding the genuineness or otherwise of old stained-glass warrants the subject being treated at greater length than was possible in the chapters devoted to the history of the art. No feature of mediaeval stained-glass is so sure an evidence of antiquity, yet the appearances it presents are so varied, and the variations are so puzzling to the collector that at times he feels he would be none the less enlightened if he disregarded them altogether. It seems almost impossible to lay down rules for his guidance in so perverse a subject. No sooner does one affirm that this or that form of corrosion is a reliable guide to the nature of the glass displaying it, than another example, contemporary, apparently exposed to the same conditions and possibly from the very same window, flatly contradicts the statement. Though the appearance of the surface of old glass testifies eloquently to those who can read it aright, to the beginner it seems at first as though he were trying to read a language written in characters which changed arbitrarily from year to year, and that a language used exclusively by a race of liars from their birth. Add to this that expert forgers of old glass, knowing well the value of corrosion-holes as evidences of age, have exercised their clever brains for years in counterfeiting them or pressing them into service in a hundred different ways, and it will readily be seen that a considerable amount of time must be



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devoted to their study before the collector is enabled to use them as a gauge of authenticity.†

As is well known, glass is one of the most durable of manufactured substances. Granite frits under the eroding finger of time, steel rusts and disappears, durable Roman cements crumble and decay, but glass of the earlier Egyptian dynasties still shows its bright colours and smooth surface almost unimpaired. The oldest relics of man's handiwork which have come down to us from beyond the dawn of history are flints—and glass is flint. Hence its durability. Window glass is flint, powdered small and rendered fusible by the addition of one or two other substances which bind its tiny particles together in the fire.

Flint—just flint alone, is the ideal glass, but in its pure state it is unmanageable. No heat that can be produced by artificial means will melt it, and so potash or soda must be added to render it plastic and fusible. But this admixture develops another fault. Besides being fusible it is soluble—a hopeless defect in a material that must be exposed to weather—and so a further mixture of alkaline earths, such as lime, barytes, or magnesia, is necessary to counteract this solubility. Any excess of these earths impairs its transparency, too great a quantity of potash or soda leans towards solubility, and too much silica results in an unworkable material. Between these three stools it must be confessed the mediaeval glass-maker often fell to ground, and as a natural result corrosion is found in almost all stained-glass from the twelfth to the beginning of the eighteenth century.

The Egyptians were the first makers of glass, and from them the Romans learnt the art. In such remains of glass as have come down from these two countries corrosion is almost unknown, and when present only appears as a delicate and beautiful iridescence. The Romans especially were master glass-makers, and were the first to use the material in thin panes for windows. Such panes were both cast and blown, and the durability of both Roman and Egyptian glass is due to the fact that they had the best possible material for the soda element—natron, which the Romans imported from Egypt. As civilization—and glass-making—spread north-

# PLATE XXVIII

## DECADENCE. LARGE WINDOWS

Fig. 1. From St Eustache, Paris. Dated 1631. Lights glazed up in plain squares. Preponderance of heavily matted architecture over figure work. Glass thin, colouring muddy and poor.

Fig. 2. From Hooton Levett, Yorks. Dated 1802. By Francis Eginton. Execution good, but delicacy of painting marred by hard lines of framework. Design unsuitable for glass. Enamel colouring throughout.

Fig. 3. From St Sulpice, Paris. Dated 1672. By Le Clerc. Geometrical glazing with stained border and single central figure only separated by ill-drawn rays and clouding from hard lines of background.

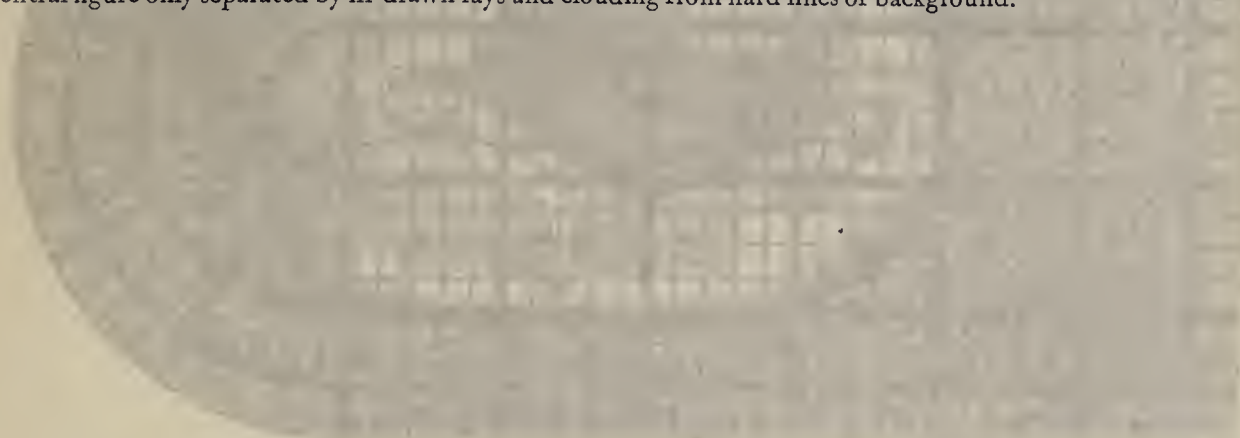








PLATE XXVIII

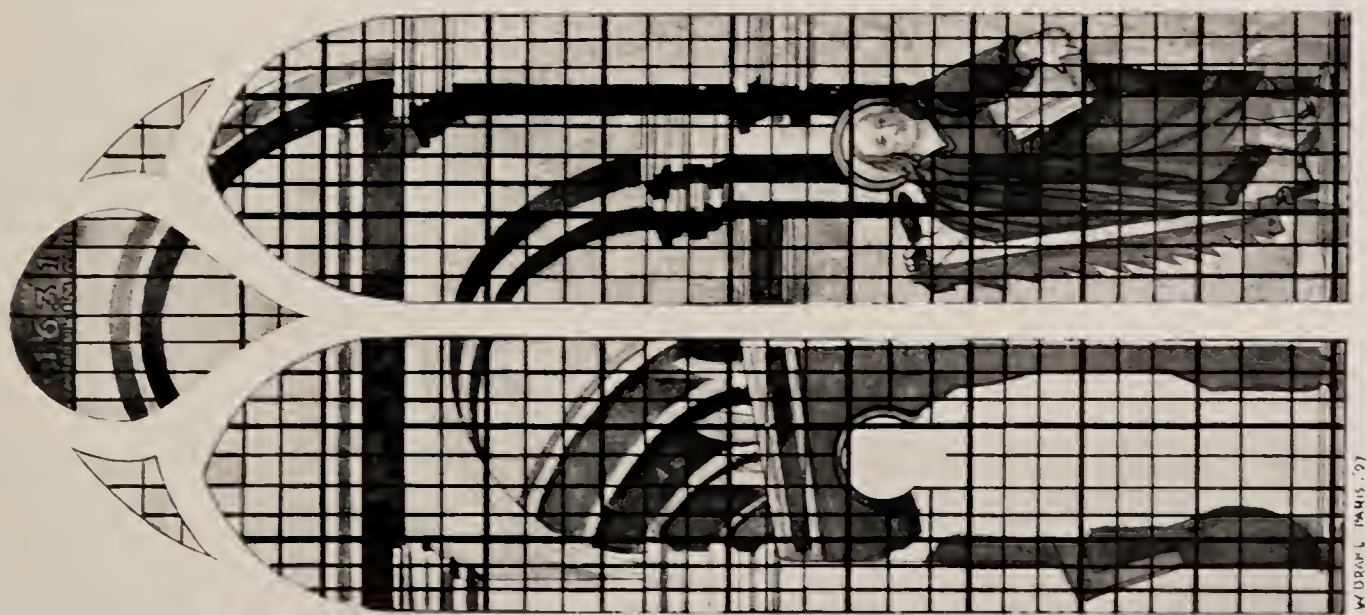


Fig. 1



Fig. 2



Fig. 3





## CORROSION

wards, and farther and farther from the Mediterranean coasts, natron became more and more difficult to obtain, and substitutes had to be found. That most frequently in use was wood ash—the ashes of burnt beech-wood being prescribed by the monk Theophilus—and no doubt, so far as the glass-makers could judge, it served its purpose very well. But the composition of wood ashes is very liable to vary. Not only do different trees yield different qualities of ash, but even in the same tree, the bark and twigs produce ashes that analyse quite differently from the ashes furnished by the wood of the trunk. Further, as they got more confident in their trade, the glass-makers grew more careless, and impurities quite alien to the nature of the material found their way into the glass, still further removing it from the ideal pure fusible silica. With each succeeding century it got worse and worse until, as may be seen at Fairford, the glass is actually less durable than the painting upon it.

As may be readily imagined, when such glass was once fixed in place, every little surface irregularity and impurity tended to hold water in wet weather. Where the soluble ingredients had not been thoroughly incorporated with the other materials the water dissolved them out and so penetrated into the interior of the glass, and the outworks of the material thus passed it was at once liable to organic changes from inside. Frost, for instance, would naturally tend to split out tiny fragments, and beyond such exterior influences, the chemical composition of the glass is liable to set up a slow process of crystallization which, extended over several centuries, has the same effect of loosening and decomposition of the minute particles of the material.\*

This decomposition, whether chemical or organic, spreads slowly in ever-widening circles from the centres first affected until a tiny mass of the crumbling material falls out by its own weight, leaving a little hole in the glass. These holes in greater or

\* These molecular changes are more fully dealt with in a paper read by Mr Noël Heaton before the Society of Arts on March 13, 1907, entitled, *Mediaeval Stained-glass: its Production and Decay*. This paper deals exhaustively with the causes of corrosion, and contains some valuable analyses of glass of different periods. *Journal of the Society of Arts*, March 15, 1907.



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less profusion and size form the commonest manifestation of decay in glass. Those who require enlightenment upon its first causes should consult the paper mentioned in the footnote. It is more to our purpose here to confine ourselves to examining its various appearances after the work of destruction has begun than to inquire into the causes that produced them.

Speaking generally, corrosion appears on glass in the form of minute circular pits, or as a semi-opaque coating or "patina"—something like a very thin smearing over of Portland cement—on the outside of the glass. Some idea of the difficulties surrounding the subject may be gained when even so general a statement requires immediate qualification, dozens of concrete instances contradicting it in every detail. The minuteness of the pits is only relative. They vary from the tiniest microscopic specks to nearly half an inch in diameter. Perhaps they may not appear as pits at all, in the common acceptation of the term. Structurally, the glass may develop a perfect cavity, but its contents, though separated from the surrounding material, may remain obstinately in place, the surface of the glass consequently appearing unimpaired. The holes are not always circular, and neither pits nor patina appear invariably on the outside surface of the glass. Sometimes, though this is unusual, when the patina is once formed it flakes off, leaving the glass brighter and clearer than before, though generally with its surface roughened as though it had been chipped all over. Again, speaking generally, in all ages since the discovery of yellow-stain, it has been found to protect the glass, whilst the metallic oxides present in outline and shading colour tend to encourage decay; but the exact converse may be observed over and over again, and so far from a yellow colour being in itself protective, many examples, notably from the fourteenth and sixteenth centuries, would seem to demonstrate that in pot-metals it is more liable to decay than any other colour whatsoever. Contradiction on contradiction confuse the student daily, but so great is the value of the evidences corrosion yields that no trouble should be spared to become conversant with its manifest and puzzling variations.

## CORROSION

The earliest stained-glass—that is to say late twelfth- and thirteenth-century examples—seems much less liable to corrosion than the work which followed it. Possibly this was due to the fact that glass-making was comparatively a new industry in England, and the earlier glass-masters, less sure of their methods, were less careless than they afterwards became.\* Where pits have formed upon this glass, however, they have generally become very large. Six centuries of exposure have acted upon them. Other little cavities have crumbled out from the sides of the first, dust, laden with spores of minute lichens, has found a resting place in them, and the tiny pushing growth of vegetation has carried on the work of breaking down their sides and making them larger and larger as time went on. Lime, dissolved out from the glass itself, coats their sides and makes them look as though they had been smeared with whitewash. The same evidences may be seen in the glass of the early fourteenth century, and now corrosion, although it is not yet general in occurrence, is far more commonly observed. Plate XXIX, fig. 2, shows several fragments of glass of this period, well worthy of careful observation. In the large circle, a rose medallion from a grisaille window in its original leading, the four elongated lobes extending outwards from the circle in the centre are of yellow pot-metal, and as may be seen they differ materially in the character of their corrosion from any other pieces in the whole medallion. The holes are noticeably large, and the white lime deposit in some of them, whilst filling up their cavities to a certain extent, only makes them more apparent. Though larger, they are, if anything, fewer in number than on the other panes. The upper piece, which has been cut in two by a modern lead, though deeply marked on one side, is almost free of corrosion on the other—one of the perplexing instances of the arbitrary way in which corrosion often attacks glass. These two pieces—one the most deeply marked of any in the panel and the other almost entirely free from corrosion—are not only of the same glass but are actually halves of the

\* Analyses of this earlier glass show an excess of potash, which gives way to soda in the fourteenth century, and doubtless this change in composition has much to do with the lack of durability shown by the latter material.



## A HISTORY OF ENGLISH GLASS-PAINTING

same small pane. The large size of the holes would seem to indicate that this yellow glass began to decay at an earlier date than the adjoining pieces. The nearly square panes between these yellow lobes are white, and it will be seen that the holes, though far greater in number, are not so large. At the top of each of these panes they are small and infrequent, but increase in number and size towards the lower edges. Probably this may be due to rain-water standing longer on the lower portions of the panes, the upper halves drying off more rapidly. The outer three-cornered panes are ruby, and though the holes they display are generally speaking smaller than any others in the medallion they are scattered thickly over the whole surface of the glass, indicating a late period of attack, but a rapid yielding to decay when once the surface began to go. Ruby frequently presents this appearance. It is a very hard glass, and very early ruby is often found in excellent condition, but when once it begins to go, nothing can stop it. The small holes are so closely packed that where the "flushed" side has been fixed outside the window it has a way of disappearing altogether, leaving the glass a dirty white. Large separate holes on the flushed side showing as white spots are, however, extremely rare, though an example of Perpendicular ruby presenting this appearance may be seen on Plate XIII (fig. 20).

When once the holes begin to crowd up and touch each other the whole surface of the glass is soon gone. Plate XXIX shows a good example of this—the vesica shaped piece in the lower right-hand corner. This is white glass of Rouen make, but painted in England, and dates from about 1320. As may be seen, the whole surface of the glass is gone excepting for a narrow strip around the edges which was protected by the lead. This stands up like the rim of a tray and is quite one thirty-second of an inch above the level of the rest of the pane.

The small arrow-headed piece to the left—a portion of grisaille painted with marginal lines—shows an intermediate stage of decay. In this case the outlines have proved a protection and are nearly perfect, standing out in slight relief from the rest of the pane. Over all the unpainted surface the pits have broken into

## PLATE XXIX

### MEDIAEVAL IMPLEMENTS AND MATERIALS

Fig. 1. Various edges of panes. The bottom piece shows an early fourteenth-century gressed edge, the example being a Decorated border, circa 1320. Compare the large spalls, the varying thickness and uneven outline of this border with the comparatively clean edge of the next piece above—a scrap of Perpendicular background, circa 1450. Next above is a late fourteenth-century selvedge from a crown sheet. Next an accidental modern breakage, and on the top a piece of eighteenth-century ruby sheet cut with the diamond.

Fig. 2. Corrosion holes. The large medallion, circa 1317, has a green centre, four yellow lobes arranged quatrefoil pattern, with four nearly square white panes between them, and ruby triangular panes around the margin of the circle. Lead lines are contemporary except for the straight flat lead which cuts right across the medallion. This was inserted in the eighteenth century. Immediately in front is the Decorated border already shown edgewise at bottom of fig. 1. Note its excellent state of preservation, the slight patina at edges, and the concentric structural lines revealed only by the camera. In front are an oblong scrap of Perpendicular white, very rotten and full of lichen, and two approximately triangular Decorated fragments where decay has attacked the smooth surfaces and spared the outline colour. The surface of the vesica-shaped piece in the lower right-hand corner has rotted completely away except for a narrow rim protected by the lead line. Behind is a Perpendicular scrap, circa 1440, showing very coarse gressed edges, and a great number of small corrosion holes. These examples have been dealt with more fully in Chapter VIII.

Fig. 3. Old forms of tools and the work they did. On the ground is an eighteenth-century wrought soldering iron with twisted handle. Upright against it is a contemporary gressing iron, and behind it a larger specimen of the same tool, a copy from an old heraldic example. Beside it, to the right, is a pane from the intercuspation at the bottom of a Perpendicular tracery opening, painted with some wavy lines (a conventional rendering of ground), a simple canopy base and the spotted leg of some beast, possibly the dragon of St Margaret. This piece dates from circa 1440 and is very neatly gressed, especially when it is borne in mind that it is cut from the centre of a crown sheet and contains the "bullseye." Next, again to the right, is a rhomboidal piece of transitional grisaille, circa 1350, with yellow stained stems. Note the coarseness of the gressed edge compared with the last example. A later piece—circa 1400—varying greatly in thickness and also very clumsily gressed rests on the soldering iron in front of these two last examples, whilst standing on the left is an S-shaped piece of Perpendicular background with very accurate and carefully finished edges. The piece lying on the iron behind it is the Decorated border which figures on both the other illustrations on this page.

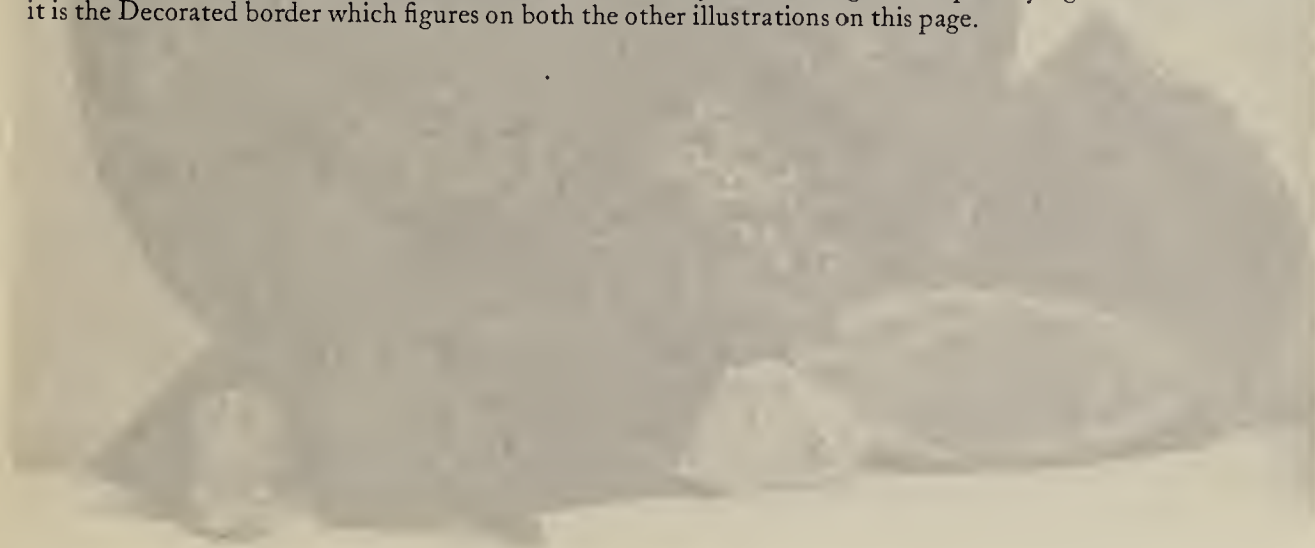


Fig. 1



Fig. 3



## MEDICAL IMPLEMENTS AND MATERIALS

• The first of these is the fact that the majority of the population of the United States is of European descent. This is true of the United States, Canada, and the United Kingdom. The second is the fact that the majority of the population of the United States is of European descent. This is true of the United States, Canada, and the United Kingdom. The third is the fact that the majority of the population of the United States is of European descent. This is true of the United States, Canada, and the United Kingdom.

PLATE XXIX



Fig. 1



Fig. 2



Fig. 3





## CORROSION

each other, though close examination still reveals the fact that they are pits, whilst every trace of separate holes has disappeared in the more advanced decay of the vesica in the right-hand corner. In the smaller piece between these two the outline-colour has again served to protect the glass in exactly the same way. The leaf and stem upon it, originally left white on a black background of outline-colour, have decayed out, leaving the background in high relief, and although some small outlined passages undermined by the corrosion have disappeared, they have protected the glass long enough to keep it slightly higher than the surrounding surface. Witness the two veins in the leaf, and the wavy line that stands out in a ridge down the middle of the stem on the right of the fragment.

All these examples are very deeply marked by comparison with the late fifteenth-century piece on the extreme right—the thick ovoid fragment with its point uppermost—and it seems absurd to state that they are none the less of better material and manufacture. But if the later fragment be examined it will be seen to be crowded with pits in far greater profusion than the earlier ones. Given two more centuries of exposure, in all probability no portion of its surface would remain. The small oblong fifteenth-century piece on the extreme left of the illustration shows this more clearly. Lichenous spores have been deposited in the holes and the glass is crumbling piecemeal. Its edges are rounded, and it has become so rotten that it can almost be pinched to dust in the fingers. Even a photograph shows how it lacks the hard, sharply defined edges of the earlier pieces. Badly decayed though they are, they stand up here and there in acute ridges and points, resisting the weather to the last, whilst the perpendicular fragment has no more angularity than a piece of much-handled cheese.

Lichen seems more liable to appear on the later decayed glass than on the earlier. Why this should be, nobody knows, but perhaps the presence of lime incrustations in the larger earlier holes may have something to do with its absence. Be this as it may, fifteenth-century glass seems much more liable to harbour its growth than glass of a century earlier, and its presence undoubt-



## A HISTORY OF ENGLISH GLASS-PAINTING

edly aids the normal process of decay. Again, the few fragments of fourteenth-century glass shown here are curiosities—rare examples collected during twenty years of observation—whereas almost every other piece of Perpendicular glass will be found corroded to some extent, though insufficient time has elapsed since it was painted for the holes to develop to the size of the early fourteenth-century examples. To give a better idea of the durability of the earlier glass one border of the same date has been placed with the other fragments. It lies in front of the medallion and behind the two small pieces on the left of the illustration, and, as may be seen, is untouched by any trace of decay whatever, and is smooth and hard and clean as when it came from the kiln six hundred years ago.

Not only are these examples exceptionally decayed for their period, but two of them show another anomalous feature—glass protected by outline-colour. The converse is the rule, at least in glass later than the middle of the fourteenth century. Corrosion nearly always attacks the painted portions first. This is probably owing to the slight roughness of the outline colour holding water a trifle longer than the smooth unpainted glass.

The magnified outline on Plate XXX, fig. 1, shows this feature clearly. Not only is the outline itself badly rotted, but holes appear along its edges, all pointing to the retention of water. In most cases this water would be charged with carbonic acid, the painted side of the glass being on the interior of the building, and the moisture to which it was exposed being in part due to the condensation of breathed air.

Matt, like outline-colour, seems to encourage decay, probably for the same reason, its slightly rough surface holding water longer than the unpainted portions of the surface. In this same piece of magnified glass are seen some hair lines wiped out of matt beside the rotted outline, and it will be noticed that the longest of them corresponds with constrictions in two of the cavities it crosses, plainly showing that the holes were first formed on either side of it, and only crossed its smooth surface when they expanded and broke one into the other.



## CORROSION

Chemically-charged atmospheres display varying effects on glass, but no detailed study appears to have been given to the subject, and, in consequence, no rules can be laid down. It seems certain, however, that glass decays more rapidly in the north of England than in the south, but whether that is due to coal smoke or greater variations of temperature has never been decided. Further, glass fixed below an exterior saddle-bar will frequently show more decay than the panes above it. It may be that the bar drips water after the surface of the glass is dry, or perhaps the ferric oxide washed off it has some part in causing the decay. In either case the fact is so apparent that sometimes when saddle-bars have been removed their original position can be decided by the marked line of decay beneath them.

Not only does outline-colour, as a general rule, hasten corrosion, but it appears to possess a quality of transmitting this tendency to other pieces of glass fired in the same kiln. I have seen examples in which the painted side of the glass had escaped attack, but in which the smooth exterior surface had corroded badly in neat patterns entirely different from those with which it was painted, but exactly duplicating the design of some other part of the window. Thus a piece of floral border would be deeply etched upon the back with a canopy pinnacle—croquets, finial, and all complete. The only possible solution of such a puzzle is that the pieces were packed next to each other in the kiln, and that under the influence of heat the outlined canopy printed its pattern invisibly upon the border—an invisible writing destined to become legible after a century or two of wear and tear.

Just as outline-colour—with exceptions—has a tendency to cause corrosion, so silver stain—again with some exceptions—generally protects glass. Fifteenth-century quarries, crowded with small corrosion-holes, nearly always have the yellow portions of their design left standing clear and smooth. In all the hundreds of perverse manifestations of glass corrosion it is quite comforting to be able to state that to this rule exceptions really are infrequent. Yellow stain, in ninety-nine cases in a hundred, is protective. At the same time it should be remembered that ex-



## A HISTORY OF ENGLISH GLASS-PAINTING

ceptions do exist, and even where the stain protects the glass, it seems to stimulate corrosion around its edges. Perhaps the yellow portions appear bright and transparent, whilst the white glass around them is thick with pits, but in nearly every such case the pits will be found more thickly crowded as they approach the stain, so that in many cases they appear to follow the outlines painted *on the other side of the glass*. This appearance is most deceptive, and has given rise to the supposition that outline-colour can cause corrosion on the opposite side of the glass to that on which it is painted—an obviously impossible error. It should be added that stain has a way of its own in decaying. Although generally exempt from the pits and roughnesses caused by the commoner forms of corrosion it does alter with exposure, and alters in a very beautiful way, becoming richly iridescent, displaying beautiful variations of colour when looked *at* and not *through*. When held up to the light it appears unaltered, of the usual transparent yellow, but held downwards, as when laid upon a table, this rainbow iridescence is most marked, and is a valuable indication of age. It can be produced in the kiln, but it is an uncertain business and full of difficulties, and even when it is successfully imitated some transparency is lost and the stain has a muddy effect, so that clear bright stain associated with iridescence may be regarded as an almost infallible evidence of age.

As we get later the corrosion-holes naturally become smaller and smaller and by the beginning of the seventeenth century appear merely as a slight roughness on the surface of the glass. Again there are exceptions, but not many. As late as the end of the seventeenth century round deep holes are occasionally found, but they are so infrequent that they become a curiosity more suitable for examination by the chemist than the glass-collector. With the perfected methods of glass-blowing in the eighteenth century they would seem to have disappeared altogether, though their absence may of course be due to the comparatively short time they have had in which to make their appearance. It should, however, be noted that analyses of modern sheet glass show practically the same proportions of silica and lime as did Roman glass, which

## CORROSION

has proved especially durable, whilst the glass of the Middle Ages shows a great drop in the proportion of silica and a corresponding increase in the use of magnesia and lime. The proportions work out roughly at 69 per cent silica and 11 per cent lime-magnesia for Roman glass; 70 per cent and 13 per cent for modern sheet; and 54 per cent and 20 per cent for mediaeval glass. The soda or potash ingredients are fairly constant, being about 15 per cent in all three, though the Roman glass contains a little more than the others; but the mediaeval glass shows a 7 per cent proportion of impurities entirely absent now and in the days of Rome.

Seen under the microscope a corrosion-hole is on plan simply a circular or ovoid cavity slightly roughened on its interior surface (Plate XXX, figs. 1, 3 and 5). Sometimes two such cavities break one into the other, as may be seen in Fig. 1. Once formed, the hole has a tendency to decay at the sides, so that when undisturbed it is sometimes slightly wider at the bottom than the top. Where this process of interior decay produces a deposit of infiltrated lime, the deposits sometimes crust over the bottom of the cavity and prevent further decay, the edges at the surface, being exposed, break down, and the hole becomes saucer-shaped, wider than its depth, as in the larger holes in the medallion on Plate XXIX, fig. 2. Where no lime is produced and corrosion goes on, the holes continue to grow, breaking one into the other until the whole surface of the glass is destroyed. Such holes can only be imitated with great difficulty, and so are practically a certain evidence of antiquity. I do not know of any instances where they have been copied with any care. Smearing with hydrofluoric acid, and allowing it to eat into the glass undisturbed, produces small clustered crystalline spots not unlike corrosion holes when viewed from a little distance, and this, I believe, actually has been done in one case in the north of England, where a window, saved from a well-known abbey at its destruction by fire, was somewhat drastically restored before it was replaced. It may as well be said at once that this is carrying restoration rather too far. I grant that it is occasionally necessary to imitate corrosion holes in some way—as when in restoring an old window broken glazing has to be



## A HISTORY OF ENGLISH GLASS-PAINTING

helped out with new glass—but the use of acid for this purpose is not fair play. “Antiquating”—smudging modern glass with matt, which when dry is sprinkled with water and rubbed with the finger to produce a dappled appearance, or spattering with nearly dry matt from a stiff brush to produce spots like corrosion-holes—is an operation familiar to every restorer of ancient glass. It is one of the apprentice’s earliest jobs. There is no intent here to deceive. The antiquating merely dirties the new glass until it resembles the old and does not stare too baldly from the restored window. But, acid? Acid-spots are not cricket—not playing the game at all. Why use acid, when matt was to hand? Considerable additional trouble is indicated on the part of the painter, and that quite unnecessary trouble. If he only desired to keep his modern patches in harmony with the old and dirty glass around them spots of matt would have served his turn. Working in good faith, it is quite inconceivable that he should have used acid in the place of matt. But once the glass is examined in the hand the effects of the acid no longer resemble corrosion in the slightest degree. The crystalline spots show as little rough bosses raised on the surface and not as cavities sunk below it.

The forger’s method of turning corrosion to account is to procure unpainted glass already well marked with holes—a fair amount of which glass is procurable, especially upon the Continent—to cut it, paint it, and glaze it up into windows in which to all appearance the workmanship is as old as the material. For some years this species of fraud went unchallenged, though examination under the microscope generally reveals the cheat at once. In Plate XXX, fig. 3, two holes are shown from a panel treated in this manner. As may be easily seen, the shading-colour (matt) used upon the surface of the glass has run into the holes, an obviously impossible thing for it to do if the glass had been in sound condition when painted. A later and more wily generation of forgers devised the plan of filling up the holes with some non-fusible material, such as gum and whiting, before painting the glass. When fired this harmless substance dropped out, leaving the holes entirely free from paint. Plate XXX, fig. 5, however, betrays

# PLATE XXX

## CORROSION, ETC., UNDER THE MICROSCOPE

Fig. 1. An outline on white glass. Genuine. Late fifteenth century. Corrosion attacking outline colour. The holes actually on the outline are encrusted with an opaque deposit, probably of vegetable origin, which has cracked all over and in places chipped off entirely, showing the white glass beneath. To the right of the outline is a film of matt showing scratches produced by separate hairs of a stiff brush. Note how the longest scratch coincides with constrictions in the corrosion holes it crosses, smooth, clean glass being less liable to decay than a painted surface. The granulated appearance of the outline is probably due to the use of a white flux.

Fig. 2. Dutch seventeenth-century white sheet glass, unpainted. Genuine. The dark blurred line across the top of the circle is dirt adjoining the lead line, out of focus owing to its being on the other side of the glass. The patina is a mere roughening of the surface, getting smoother and fainter as it gets farther from the lead-line. The black specks scattered over it are of vegetable origin.

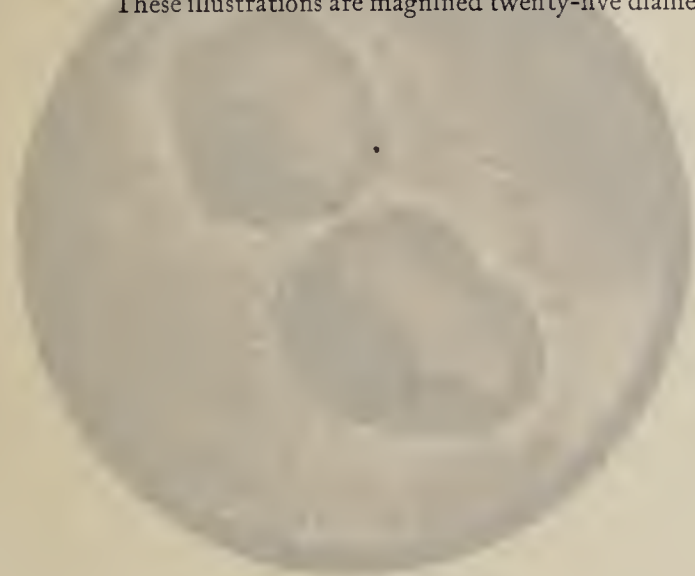
Fig. 3. English Early fourteenth-century white glass, painted with modern matt. Note how the matt has run into the two large corrosion holes, whilst it has been rubbed away from around their edges.

Fig. 4. Dutch seventeenth-century white sheet with modern matt in imitation of patina (see fig. 2). Note the comparative smoothness of the matt compared with the genuine corrosion on fig. 2, and the smudges caused by rubbing with the hand.

Fig. 5. Late thirteenth-century white glass. Corrosion holes genuine, but outline modern. The larger holes have been kept free of colour by filling with some non-fusible material before painting, but the smaller ones, not having held this material, have been flooded with the modern outline colour. Note the absence of any holes intermediate in size between the smaller and the larger holes, indicating a change of conditions some time subsequent to the glass being first fixed in place. Also note how smaller holes tend to follow streaks on the surface parallel with the structure of the glass, as indicated by the bubbles in its interior.

Fig. 6. Dutch seventeenth-century sheet glass with imitation patina produced by exposure to the vapour of hydrofluoric acid. Compare with figs. 2 and 4, and note how dirt clusters in the spaces between the raised spiculæ produced by the acid.

These illustrations are magnified twenty-five diameters.





OPTICAL SYSTEMS OF MICROSCOPES  
CORROSION, ETC. UNDER THE MICROSCOPE

The first of the two methods of corrosion is the electrolytic method. In this method the specimen is placed in a solution of an electrolyte and connected to a source of direct current. The current causes the specimen to corrode, and the corrosion products are removed by washing with distilled water. The second method is the chemical method. In this method the specimen is placed in a solution of a chemical reagent, which causes the specimen to corrode. The corrosion products are removed by washing with distilled water. Both methods are used to study the structure of the specimen under the microscope.

The second of the two methods of corrosion is the chemical method. In this method the specimen is placed in a solution of a chemical reagent, which causes the specimen to corrode. The corrosion products are removed by washing with distilled water. Both methods are used to study the structure of the specimen under the microscope.

The third of the two methods of corrosion is the electrolytic method. In this method the specimen is placed in a solution of an electrolyte and connected to a source of direct current. The current causes the specimen to corrode, and the corrosion products are removed by washing with distilled water. The fourth method is the chemical method. In this method the specimen is placed in a solution of a chemical reagent, which causes the specimen to corrode. The corrosion products are removed by washing with distilled water. Both methods are used to study the structure of the specimen under the microscope.



PLATE XXX

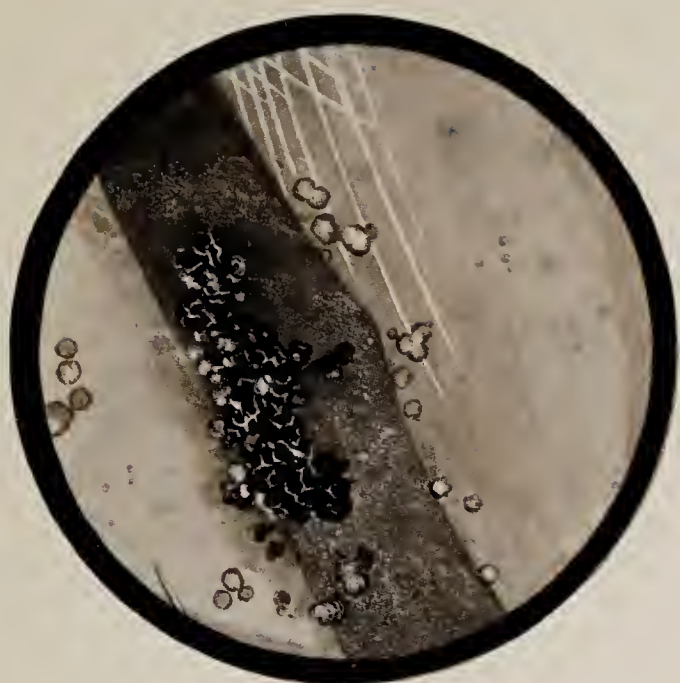


Fig. 1



Fig. 2



Fig. 3



Fig. 4

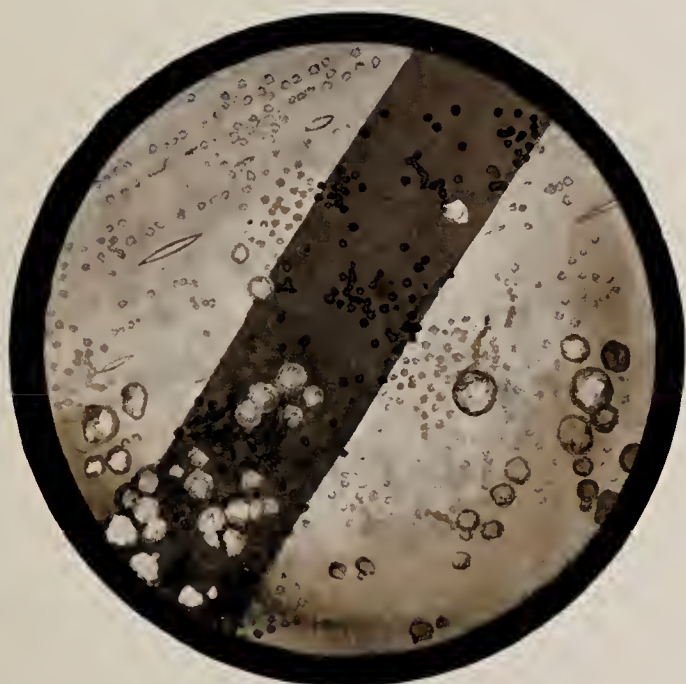


Fig. 5

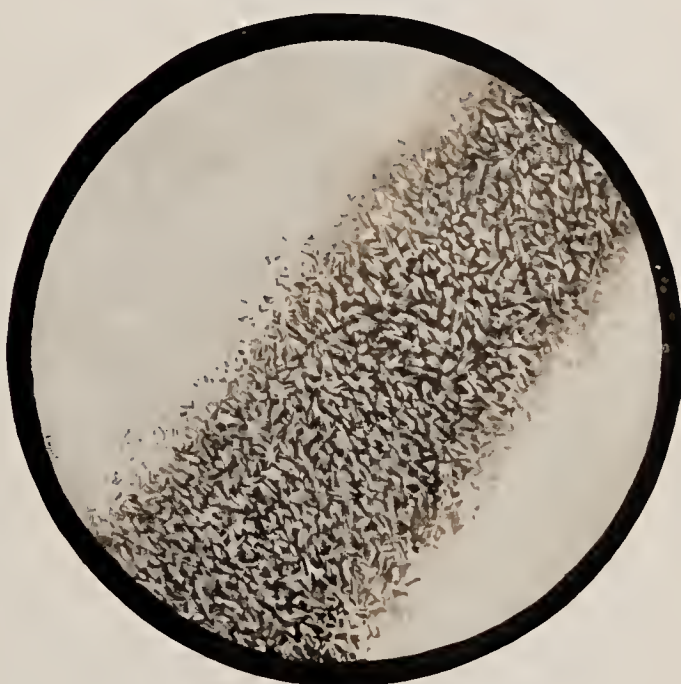


Fig. 6





## CORROSION

a weak spot in this procedure. The larger holes are free from outline-colour, as they would be if genuine, but in cleaning off the surface of the glass before painting it the forger has wiped a number of the smaller holes quite clean and they have become choked with the outline-colour subsequently applied. Besides, the corroded holes in the outline are rather too clear. Compare this modern outline on old glass with fig. 1, on the same plate, where paint and glass are contemporary. In the genuine example the holes are filled with some black incrustation, which certainly has cracked all over and in some cases dropped out entirely, showing the white glass underneath, but the holes are not so free from dirt as in the forgery, where a sharp point has probably been used to clear the last traces of whiting out from them. Fig. 5 shows another curious feature. Its holes are of two distinct sizes, with no examples intermediate between them. It would seem that corrosion has developed at two separate periods, the first holes having had time to grow to some considerable size before the second lot of smaller ones began to form. Whatever the cause of this, the well-marked difference between the two sets of holes points to a change of conditions at some period considerably later than the insertion of the glass in its original position. This example is very instructive, and its interest is in no degree lessened by the fact that the panel containing it, unchallenged by any authority, is now being greatly admired as typical thirteenth-century work in a prominent national museum.

As has been already remarked, the holes in fifteenth-century glass are much smaller and are present in far greater numbers than in earlier work. Size and numbers apart, they present the same peculiarities as in Decorated glass, but occasionally are found in an embryo stage, as it were. Where chemical changes are responsible for their formation they may occur as black spots only, and not as cavities. The concretionary action of the glass molecules has done its work, but the separated fragment has not dropped out, and though the spots appear as intensely black specks when the glass is looked through, the smoothness of its surface remains for the time being unimpaired.



## A HISTORY OF ENGLISH GLASS-PAINTING

Again, whilst Perpendicular glass is smoother, thinner, and to all appearance better made than glass of earlier manufacture, its faulty materials are often not well mixed, and corrosion, by attacking the parts in which the potash elements predominate, often demonstrates the streaky nature of the glass. Plate XXX, fig. 5, shows this tendency under the microscope. The elongated bubbles in the interior of the glass show that it was cut from near the edge of a crown sheet, the segmental arcs having become very flattened in their curve, whilst the smaller corrosion-holes upon the surface, following a course exactly parallel with them, indicate a streak of metal where soda and potash were in excess of the proportion demanded for the purpose of durability. The head of the Mater Dolorosa on Plate V shows the same thing—corrosion-holes ranged in streaks and lines due to the insufficient mixing of the glass-maker's ingredients.

Owing to the popularity of sixteenth and seventeenth century secular glass, the forger's attention has been more carefully directed towards imitating the work of these later periods than the deeply corroded earlier examples. Seventeenth-century corrosion—known more often as "patina" or dust corrosion—rarely shows the separate well-marked holes of the fourteenth and fifteenth centuries. It is a mere roughness—and in most cases a very slight roughness at that—which sometimes spreads all over the surface of the glass, but more usually is only present near the edges of each pane. It is imitated in two ways, both very difficult to detect excepting with the aid of the microscope. The genuine article magnified is shown on Plate XXX, fig. 2, which is from the edge of a Dutch pane of the early seventeenth century. As will be seen the granulated roughness—a mere cloudiness—of the surface decreases as it gets farther from the edge, and finally disappears altogether. Scattered irregularly over it are ragged black specks, probably of vegetable origin, adhering only to the rough portions of the glass and entirely absent from the smooth undecayed surface. The simpler method of copying this patina is to lay a film of matt upon the glass, rubbing it off again except around the edges before firing in the kiln. This is gen-

## CORROSION

erally overdone, and as the collector has already been warned to beware of too much matt on small secular Renaissance work, the ordinary over-matted forgeries call for no further precautions. Besides, fired matt feels smoother when rubbed with the fingers than the true patina. But where the forger has resisted the temptation to smear his glass all over, so that his matt is merely a narrow faint film around the edge of the pane, this trick is sometimes successful. Plate XXX, fig. 4, however, shows such a matt film under the microscope. Its levelled surface has not had time to accumulate the deposits of vegetable matter and, moreover, it displays traces of rubbing—quite an impossible feature in genuine corrosion.

Another method of producing patina is to expose the glass for a few minutes to the vapour of hydrofluoric acid, and if adroitly done it is almost impossible to detect the fraud with the naked eye. Again the microscope comes to one's aid. Plate XXX, fig. 6, shows an artificial patina, produced by acid, under a two-inch lens. Comparison with fig. 2 shows the difference at once. Apart from its vegetable specks, the genuine patina is granulated, whilst the work of the acid is crystalline. But the thousands of tiny bright spiculæ and crystals, crammed close together and containing dirt in their interstices, look remarkably like a true patina to the unaided eye, or even under a fairly strong reading-glass.

Finally, a very elementary caution. Cases have occurred where amateurs, having learnt that corrosion-holes are an irrefutable evidence of antiquity, have been deluded into buying forgeries painted on the ultra-modern glass known as sanded sheet. It seems a pretty hopeless task to try and convey any warnings whatever to a collector capable of such a blunder, for the depressions in sanded sheet show scarcely any resemblance whatever to corrosion-holes. The sand being scattered over the iron plate on which the molten glass is annealed certainly does cause little holes in the glass, but each hole is at the bottom of a shallow depression, not like the more or less clean-cut holes that break the otherwise level surface of corroded glass. The microscope plainly shows each



## A HISTORY OF ENGLISH GLASS-PAINTING

sand-hole as a centre of a little tent-like fibrous structure caused by its obtrusion into the glass when in a state of fusibility.

Corrosion-holes cannot be forged except with great difficulty and so are an almost certain proof of antiquity in glass. It is said that the more sedulous forgers of Swiss glass have been known to take the trouble to drill them out, but it need hardly be remarked that this is a most troublesome and tedious process, and so is rarely encountered. I have never seen such an example, at all events, but I should imagine that the microscope would at once distinguish between exactly circular drilled holes and the irregular forms of genuine corrosion cavities. So that when cavities occur there is very little need for any further doubt as to the material, but there may be as to the workmanship. The smaller holes should be examined to see whether paint of a later date has entered them, and any other evidences the glass may present should be subjected to careful examination. Patinas in later work should be minutely scrutinized, if possible with a good microscope. No forgery whatever can stand against that test.

Remember that corrosion, being mainly caused by water entering the glass, is always more likely to occur where any little roughness—such as matt or outline-colour—gives water a chance to rest. Remember that yellow stain is generally protective, and never forget that there are countless exceptions to both rules.

Ten volumes this size could make no adequate attempt at exemplifying all the perplexing variations of which corrosion is capable. They require constant personal study, but when in course of time the collector has examined some thousands of examples and has become accustomed to their perversity he will find them of all evidences the most sure and certain aid in discriminating between genuine and spurious stained-glass.

## PLATE XXXI

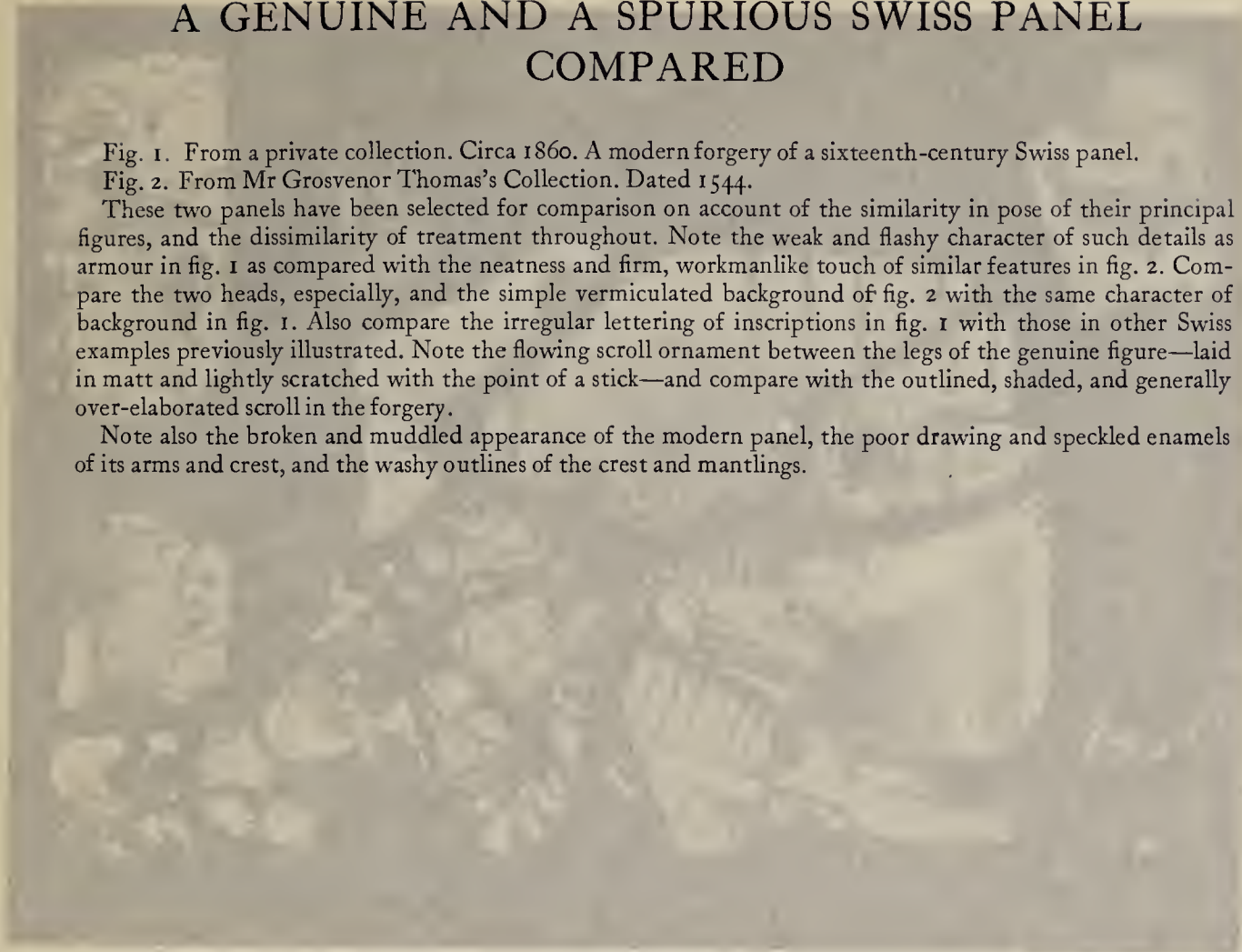
### A GENUINE AND A SPURIOUS SWISS PANEL COMPARED

Fig. 1. From a private collection. Circa 1860. A modern forgery of a sixteenth-century Swiss panel.

Fig. 2. From Mr Grosvenor Thomas's Collection. Dated 1544.

These two panels have been selected for comparison on account of the similarity in pose of their principal figures, and the dissimilarity of treatment throughout. Note the weak and flashy character of such details as armour in fig. 1 as compared with the neatness and firm, workmanlike touch of similar features in fig. 2. Compare the two heads, especially, and the simple vermiculated background of fig. 2 with the same character of background in fig. 1. Also compare the irregular lettering of inscriptions in fig. 1 with those in other Swiss examples previously illustrated. Note the flowing scroll ornament between the legs of the genuine figure—laid in matt and lightly scratched with the point of a stick—and compare with the outlined, shaded, and generally over-elaborated scroll in the forgery.

Note also the broken and muddled appearance of the modern panel, the poor drawing and speckled enamels of its arms and crest, and the washy outlines of the crest and mantlings.





A GENUINE AND A SPURIOUS SWISS PANEL.  
 (Continued from page 10)



PLATE XXXI



Fig. 2



Fig. 1





## CHAPTER IX. THE COLLECTOR.

Pleasures and profits of glass collecting—Where old glass may be found—How to begin a collection—Small scraps, what they teach, and what to do with them—What to observe, and what to beware—Corrosion as a test—Superfluous matt—Iridescence of stain—Pre- and Post-Renaissance work—Decaying enamels and outline-colour—How they are imitated—The two classes of outlines—Modern outline colour and premature decay—Other tests—Lead-lines—How to sort old glass fragments—Swiss forgeries—A warning.

**P**ERHAPS no hobby gives more pleasure to its rider than the collecting of old stained-glass, and very few indeed are more directly or indirectly profitable. Despite the great increase in the number of stained-glass enthusiasts during the past ten years, by comparison with other pursuits the subject still remains almost untrodden ground. Glass has not yet had the vogue of china, of old furniture, or of pictures, and although a large number of larger and more important panels have already been absorbed into this or that collection large quantities still remain scattered up and down throughout the country, only waiting for the eye of the expert to detect their value. One never knows when or where they may be encountered. They rest concealed in hundreds and thousands of little holes and corners—in builders' and glaziers' shops, in country cottages, private residences, farms, old manor houses—fixed in overgrown and cob-webbed windows or packed away in boxes relegated to the attic, the barn, or any like repository for stagnant rubbish. Any shabby hole seems considered good enough for the storage of old glass. It seems to creep for safety into the remotest corners, and there lies forgotten till some chance shaft of sunlight pierces ivy or cobwebs and wakes it to life and colour, or a turning-out of neglected recesses brings it again to light.

Nobody values it. Though a few hundred collectors are in constant search of it, and perhaps twice as many antiquaries may display some curiosity when it is brought under their notice, the great bulk of English people care nothing whatever about old stained-glass. I have seen a farmer removing fourteenth-century



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grisaille with a shovel. Further, as set forth in the introduction to this book, I have known a carter pack seventeenth-century Dutch medallions to stand on whilst he drove his horse. Outside the walls of a cathedral in the Midlands I have picked up fragments of Decorated Royal coats-of-arms that had been thrown away as of no value, and have seen thirteenth-century grisaille from another English cathedral sold in boxes by the hundredweight—all these well within the last ten years. Old glass can be procured cheaply enough by the collector as yet—sometimes “picked up” in the most literal sense of the words. And good glass too. As for small scraps, England is full of them, and it is just such small fragments that the beginner should at first endeavour to obtain.

In all collecting one must buy experience, and when it can be bought cheaply, in small doses, as it were, it tastes much better than when purchased in large quantities at considerable expense. The collector of limited means who has purchased small specimens at a low rate can learn as much from them as can his wealthier brother from the larger and more complete examples that adorn his collection. Close, intelligent examination is the essential, and that examination can be even more conveniently directed to small fragments than to large panels. I know one wealthy collector who spent two or three years and several thousand pounds in acquiring glass as a commencement for his collection, only to discover at the end of that time not only that not one-fiftieth of his purchases were genuine, but that his collection could yield him only negative experience. As a museum of forgers' tricks it possessed considerable interest, but as for the more valuable evidences of antiquity—he might have spent six months upon a minute examination of it, point on point and detail on detail, and finished no wiser than when he began. Yet many a man with pence to spend where this collector had pounds has brought a hatful of broken scraps here and there from country glaziers, studied them minutely, and when he had learnt from them all that they could teach, sold them for ten times what he gave, and armed with newly acquired knowledge, judgment, and discretion bought larger panels to replace them.

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Let the beginner therefore seek broken scraps of old glass rather than complete specimens, no matter of what period. Should he come across panels or medallions that appear to him of interest or value let him call in an expert to report upon them rather than run the risk of spending money on worthless copies of old work. Forgeries are nearly always complete, naturally, though a few breakages and repairs may sometimes be introduced to give them an air of antiquity. They are very tempting, some of them. Here a head of a saint, there a little complete—or nearly complete—figure or subject composition;—I grant you they seem to promise far better value for money than a couple of handfuls of dirty, chipped and broken scraps, which look as though they had just been picked up off a rubbish heap in a field. The worse they look—the more they resemble pieces of dirty bottle-glass or broken tiles—the more likely it is that they are worth acquiring. Study of their irregularities—their rudely chipped edges, their streaks and ridges and holes and deposits of grime—alone can impart that knowledge without which the collector will be wise to refrain from purchasing the larger and more valuable specimens.

No matter how small such scraps may be they are worth something, and, far and away beyond their money-value, they provide examples from which to study the characteristics of each period. No matter how carefully such characteristics may be described in this or any other text-book, the student of glass must learn to recognize them at sight from actual examples. Take corrosion-holes, for instance. Plate XXIX, fig. 2, shows their appearance as clearly as a photograph can do, and the illustrations on Plate XX, which show their appearance under the microscope, will, I hope, render them still further unmistakable; but until one has handled and examined them in actual glass there will always be some danger of being deceived in their appearance. The first half dozen scraps with which a collection is begun will teach lesson on lesson in return for minute study of their peculiarities, and with every addition to his store the intelligent collector will find himself on safer ground. Another most weighty reason for confining one's earlier purchases to small pieces is that such fragments are



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far more likely to be genuine than complete panels, as no forger of glass would waste his time on imitating scraps that at most would sell for a few shillings, and the only danger threatening the small buyer is that at the very outset he may find himself the possessor of some specimens of modern "cullet"—mere refuse of the glazier's shop.

But cullet is generally unpainted glass, and even where stained scraps are thrown away the smoothness and newness of their appearance betray their date at once. If the scraps are new and shiny—glass-like, in a word—leave them alone.

When a dozen or so of small pieces have been acquired it would be as well to have an expert's opinion upon them. Any competent glass-painter should be able to point out the more obvious evidences of age, and after once learning these the collector can go on buying with more certainty. These first tiny scraps should be leaded together in a patchwork, and hung up before a window. This plan is better than keeping them in a cabinet, as not only do they generally possess some remains of beauty in their colouring, which makes it worth while to keep them in view, but their appearance becomes familiar, and the collector's eye more readily learns to recognize other antique fragments at sight. At the present moment it should be comparatively easy to acquire a collection of such fragments, perhaps twenty or thirty pieces in all, ranging in date from the middle of the fourteenth to the close of the eighteenth century, for about a sovereign at most, and for a considerably less sum if the buyer keeps his eyes about him. A thorough examination of such a series, conducted with intelligence, should leave the collector with an asset worth twenty times his outlay, a knowledge of the subject that will enable him in many cases to recognize some of the leading peculiarities of each period at sight.

As his collection grows the small fragments it contains can be leaded-up in more medallions, bestowing ever more and more spots of bright colour to his windows, and later, when he purchases larger and more important pieces, these patchworks can be pulled to pieces and leaded-up again as borders round the more

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valuable specimens of each period. In such houses as have lead-lights in their windows nothing is easier than to remove a pane, to instruct a glazier to lead-up some scraps to the required size, and to fit the little patch of colour as a centre-piece to the leaded light, thus getting the excellent effect of a Renaissance domestic design—a coloured centre set amidst plain glazing. Where the windows are the ordinary large sashes, a ring of wire can be soldered to the outer lead of the patchwork, and the medallion hung by it to a hook fixed in the central sash-bar. It is surprising what an addition—and what an attractive addition—such a little splash of translucent colour makes in a modern room. And the more pieces are added, the more the colour is enhanced and the effect improved.

This suggestion as to patchwork only applies, of course, to really small scraps—fragments, say, of less than about two inches in diameter. Larger pieces of drapery, canopy work, inscriptions and so on, possessing some individuality of their own, should be made up into panels after the manner shown on Plates V, VIII, XIII, and XVI.

If desired, a short description with the date can be painted on the modern pieces of background adjoining each specimen, as the dates are painted on Plate VIII; and this, if neatly done, adds considerably to the appearance and interest of the collection. Panes complete in themselves, such as small tracery eyelets, shields, quarries, or borders, can be used with good effect as centre-pieces to each panel. If it is desired that these lights should be removable they can be fixed in slender wood or metal frames, either left free for purposes of handling, or attached by screws to the woodwork of the windows in which they are displayed.

There should be very little difficulty in thus acquiring the foundation of a collection. From the first, two important evidences should be borne in mind. These are corrosion and superfluous matt. If the glass is decayed, it is genuinely old. So much is certain. The paint upon it may be of a later date than the glass itself, as laid down in the preceding chapter, but there is little danger of this where small pieces are concerned. Superfluous matt, on the contrary, is almost as certain an evidence that the glass is not



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older than the nineteenth century. The old painters made their own shading-colour, and, making it with difficulty, were never inclined to waste it. But the lead-lines made sharp contrast against the thin poor glass used sixty or seventy years ago, and the practice was adopted of "backing" the glass with matt. That is to say, the outer or unpainted surface of the glass was smeared all over with a level film of matt, which, rubbed off from the centre of the pane, was allowed to remain around the edges adjacent to the leads. This gave a softness to the appearance of the window. The black lead-lines did not stare so much, and the whole had some slight resemblance to old glass, obscured and toned down by the dirt of ages. Seeing this, glass-forgers naturally seized upon "backing" as a means to the same end, so that it may safely be accepted as an axiom in glass-collecting, that if glass shows more matt on either side than is necessary for the legitimate purposes of shading, that glass is modern and not antique.

Perfectly honest restorations of old windows very often display matt in excess, heavily smudged on the glass to resemble the dirt and grime of ages. To make such glass harmonize with its surroundings it is often spattered with water or more matt in spots and streaks, the whole operation being described as "antiquating." Bearing in mind the preceding warning the collector who avoids superfluous matt cannot be deceived in such material for a moment. It looks like old glass when fixed in place, but on examination in the hand the matt smears undeceive the observer at once. In ninety-nine cases in a hundred they were never intended to deceive. But sometimes, where the glass to be matched is only slightly marked with age, a faint speckling with almost dry matt from a stiff brush serves the restorer's turn, and as such a speckling does rather resemble small corrosion-holes in embryo, it may occasionally delude a collector into believing that it is really old. If the appearance of the glass itself does not enlighten him—and modern "antique" glass is sometimes rather deceptively like the material from which it derives its name—a rub with the finger will always show the difference. The matt spots are rough and slightly raised above the surface of the glass—something like acid spots on a

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smaller scale—and their roughness and slight projections hold the finger, which glass commencing to decay, with its corrosion-holes still closed, will never do.

Allied to corrosion-holes is the iridescence of stain, though it is a less certain evidence than the more material form of decay. In ninety-nine cases out of a hundred where stain is iridescent, it is earlier than the beginning of the eighteenth century, unless its colour against the light is red. As has been stated elsewhere, red or orange stain came into use in the sixteenth century to replace red enamel, which was never entirely satisfactory in effect. Since the beginning of the eighteenth century it has been produced upon a special sheet glass made for the purpose, called “kelp” sheet. This material is pure white, exactly resembling ordinary window-glass in appearance, but whereas window-glass is so “hard” that it is only with great difficulty that it can be made to yield even a faint yellow-stain, kelp glass is prepared, on one side, to take stain of any depth from lemon yellow to deep red. Some of the earlier reds thus produced in the eighteenth century already show iridescence, and in a very few cases quite recent red stain will do the same. But if stain is a clear yellow when seen through, and iridescent when laid flat, a hundred to one it is earlier than the beginning of the eighteenth century.

For the collector's convenience it will be as well to divide all stained-glass into two classes—one painted before and the other after the middle of the sixteenth century. Broadly speaking, glass from the earlier periods is thick, is grosed, has lines, reams, or striæ, on its surface, bubbles in its interior, and generally shows corrosion-holes. Later glass is thin, comparatively smooth—very smooth indeed after the end of the sixteenth century—is cut with the diamond, shows no striæ, fewer bubbles, and where it has decayed the corrosion shows only as a mere patina or roughening of the surface, with none of the well marked cavities that break the surface of the older Gothic glass.

Bearing this rough division in mind, the collector should be able to separate his purchases into the two periods, and he can then proceed to examine them in detail. If any of the earlier pieces



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show corrosion-holes larger than one-eighth of an inch in diameter, or if the whole surface of the glass has decayed away, leaving it rough to the touch, the chances are that it is at least as early as the beginning of the fourteenth century, and he should search it diligently for any signs of the other characteristics of glass of that period which are laid down in Chapter I. The glosed edges should receive special attention. Glosing is very easy to imitate with a pair of pliers. If the edges are brighter than the surface of the glass, beware. If they show a soapy dullness try them under the microscope. Forgers have been known to dull the brightness of new glosing with matt or the vapour of hydrofluoric acid, and the effects of either process are only recognizable under the microscope (Plate XXX, figs. 4 & 6). But these attempts to deceive are unlikely to occur in small fragments, and generally a dirty glosed edge to such pieces may be accepted as genuine. Sometimes the old glass was too thick to go entirely into the groove of the leads, as may be seen in the medallion in Plate XXIX, fig. 2. The lower surface of the almost square piece of white glass to the right of the centre shows palpably above the flange of the lead. It sometimes happens that the exposed portion of such an edge corrodes at the same time as the surface of the glass, and where corrosion-holes are found on glosed edges, the age of the specimen is absolutely ensured.

If the glass is thin and clear and has been cut with a diamond, it may safely be set down as post-Renaissance work, the mark of the diamond on original edges being a certain indication of this later date. The difference between diamond-cut and glosed edges is clearly shown on Plate XXIX, fig. 1. Original edges may usually be recognized by the presence of patina, which becomes rougher and more strongly marked as it approaches the margins of the panes. If no patina appears there will probably be some deposits of hardened dirt, principally vegetable matter, which has a way of collecting around old lead-lines.

Enamels also should be carefully examined. On English glass they are frequently very faulty, flaking off the glass in patches—note the large centre shield on Plate XVI—and even in such cases

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as they still adhere they will generally be found intersected by hundreds of minute cracks. Where they have flaked off—and in a majority of cases this will probably have occurred to some extent—the surface of the glass they leave exposed provides valuable evidences of age. If it is smooth and clear, as in the unpainted portions around it, the enamel has most likely been chipped or scratched off before firing—a favourite trick with forgers of seventeenth-century glass. Genuine flaked enamel always leaves a rough surface behind it, tiny fragments of the glass coming away with the faulty colour, and leaving an irregular surface, at first bright and glistening, but which soon collects dirt and becomes a faint smudgy brown, semi-opaque in its appearance. All outline-colour and matt has this tendency to flake in a slighter degree.

For the convenience of the collector English pre-Renaissance glass may be subdivided again into two classes, distinguished from each other by the quality of the outline-colour. No sharply drawn date-line can be drawn between them, but, broadly speaking, one appears before and the other after the middle of the fourteenth century. The earlier outline-colour is of an intensely strong black, traced with great swing and vigour, and sometimes with wonderful delicacy as well. So sharp and clear are these lines, that it is difficult to understand what brush the earlier painters could have used. The best of springy sables can scarcely compass such an effect at the present day, and it has been suggested by some that a woodcock's feather was employed. Whatever the implement, it must have had the pliancy of a hazel switch, and the men who used it were wonderfully adroit.

It is only among these earlier outlines that instances are found of their protecting the surface of the glass from corrosion—a fact that would seem to argue some chemical difference in composition from the colour used during the later period. Purchases of a substance, now difficult to identify, but which was named “geat” or “get” appear constantly for the use of glass-painters in old fabric rolls, and it would seem that this substance, whatever it was, may have had something to do with the quality of the old outline-colour. Jet it most certainly was *not*, for jet is



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easily combustible. Mr Noël Heaton suggests that it may have been an imitation jet made of black glass, and demonstrates that the use of such black glass, powdered fine and used as a flux, produces just such densely black outlines as those on thirteenth-century stained-glass. In all probability a black flux actually was used, and this "geat" may have been employed in its composition.

But in the Perpendicular period the outline-colour becomes a reddish brown and its character changes altogether. It no longer protects the glass. On the contrary, it seems to lay it open to attack, for the cavities are always larger and cluster more thickly in its neighbourhood than elsewhere. Under the microscope it shows a granulated appearance, possibly due to particles of the flux, now of some white material, which have not been sufficiently amalgamated with the metallic oxides forming the obscuring elements in the colour. In time these tiny white specks become larger and coalesce, the opaque particles of oxide between them disappearing and leaving semi-transparent patches on what should have been a dead black surface. That is to say, an *opaque* surface. As has been already stated the outlines had become a reddish-brown in colour, but of course their opacity gave them the effect of black when the glass was fixed in place. Plate XXX, fig. 1—which dates from late in the first half of the fifteenth century—besides showing the manner in which corrosion spots cluster about an outline also displays traces of this imperfect opacity which Perpendicular outlines have a way of developing.

The decaying of outline-colour rarely, if ever, becomes so apparent as in the coloured enamels, but it exists, and has been imitated again and again by forgers of old glass. Before the glass is fired the outlines are rubbed with the hand, or little spots are chipped out of them with the point of a stick. The rubbing generally reveals itself to an alert eye at sight. The "decayed" outline shows either palpable scratches or soft gradations of shade around the clear spots, both entirely different in appearance from the hard black and white dapple produced when the colour flakes of its own accord. The other method, chipping with a stick, is more difficult to detect, but when placed under the microscope gener-

# SWISS DRAUGHTSMEN'S CARTOONS, FROM THE "WARNECKE MUSTERBLATTER"

Fig. 1. By Hans Holbein. Strongly Renaissance throughout, the only remaining trace of Gothic influence being the flattened elliptical arch. The two tenants of the shield have not the exaggerated vigour of the later Von Egeri and Lindtmair figures (compare with fig. 3) and no spandrel subjects appear above the arch. The frieze contains the subject of Samson and the Philistines, with flanking figures of Judith bearing Holofernes' head and Lucrece. Landscape background to subject panel.

Fig. 2. By Tobias Stimmer. Dated 1573. An heraldic panel (Wappenscheibe), with the arms of the Counts von Zimbern. The first and fourth quarterings are azure, the lions argent; second and third argent with lions gules. The central escutcheon is red and white, and the mantling of the same colours. Note the exceedingly rich treatment of shaftings and lambrequin and the facing inward of crests and quarterings.

Fig. 3. By Daniel Lindtmair. Dated 1573. Arms of the Schutzengesellschaft of Schaffhausen. The lower shields are black and green with white and yellow muskets; the upper one yellow with a black ram, crowned. The tenants are two members of the association holding their muskets, and above the entablature is a little landscape subject, showing a shooting match in progress. The rich treatment of figures and details is characteristic of Lindtmair's work, the figures being drawn after the manner of Carl von Egeri. The designer's monogram (see Appendix B) appears under the date between the two lower shields.

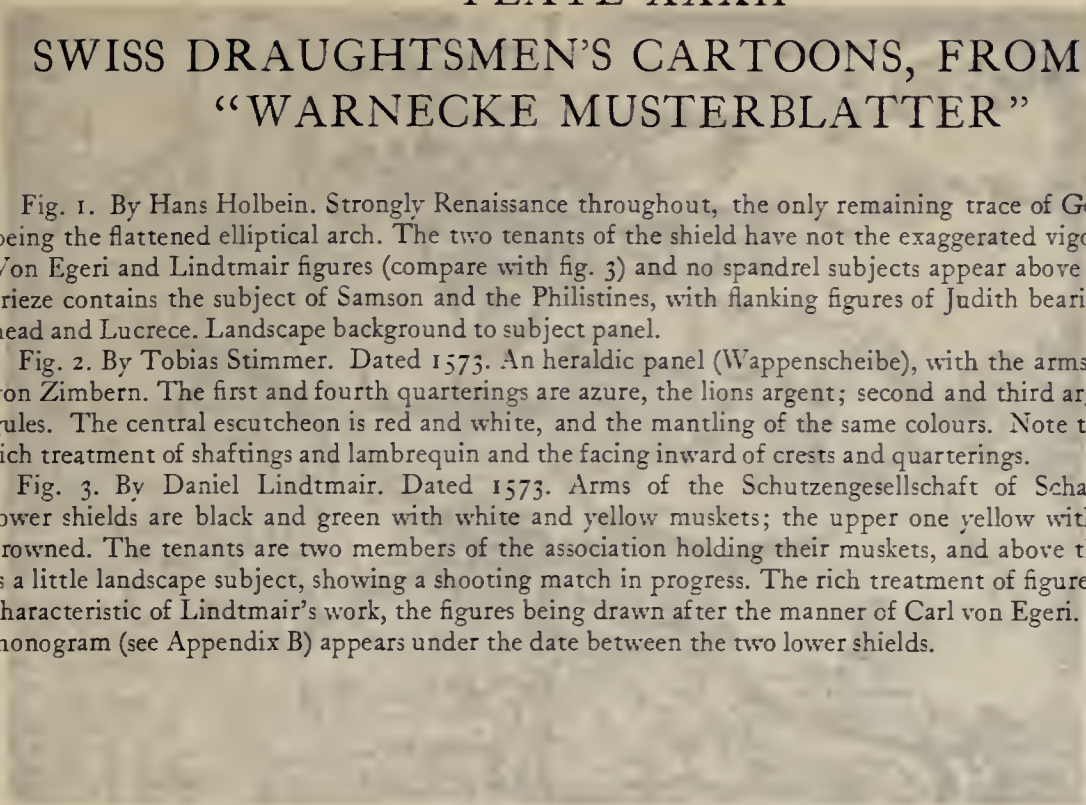








PLATE XXXII



Fig. 3



Fig. 2



Fig. 1





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ally reveals the disturbed particles of outline-colour along the edges of the scratch. Besides, as in the case of artificially-chipped enamel, the exposed glass is too clean by half. No matter how badly outline-colour decays it is bound to leave a few particles of metallic oxide clinging in specks to the surface here and there, whereas the stick pushes all before it and leaves the glass absolutely clear, untouched by any traces of outline or flux whatever.

Some modern outlines have a tendency to show a slight semi-translucency which distinguishes them at once from old work. This is due to an excess of flux in the colour and reveals itself under the microscope as granulation on a larger scale. Once it has been recognized the appearance of this super-fluxed colour is unmistakable even to the naked eye. It has a smoothness and gloss that old work never has. Old glass never shows an excess of flux, and the older it is the blacker the outlines are. Not only do these outlines appear washy and semi-translucent when fresh from the kiln, but they decay rapidly—in many cases within fifteen or twenty years from the time of their manufacture. By persons ignorant of this fact such decay may perhaps be mistaken for a proof of age, but as a rule there are generally plenty of other evidences present to warn a careful purchaser. A certain white efflorescence is sometimes associated with this premature decay—a crisp mildew, as it were—and the decay never extends beyond the outlines themselves. Corrosion holes and patina are always absent, of course, and some form of matt “backing,” no matter how faint, is nearly always found on late nineteenth century glass, in which alone this premature decay occurs.

Sometimes quite modern glass is subject to decay. A certain bright green made in the late fifties or early sixties, which was used all over England under the name of its maker as “——’s apple green,” has now almost entirely disappeared, though some few scattered specimens can still be found by the curious. Here, again, only a very ignorant amateur could mistake this later decay for true corrosion. There are no cavities, the decay showing itself in the form of hundreds of minute intersecting cracks which rapidly increase in number and cause the glass to crumble away. So soft is it that



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it can easily be pierced with the finger, when it resolves itself into a coarse, bright green powder. No such softness is found in old glass. If it ever occurred the panes affected by it have disappeared long since. No matter how deeply the corrosion holes have eaten into old glass, no matter if even the whole of both surfaces have gone and only the rotting middle portion of the pane remains, that portion will still be as tough and hard as ever.

The hardness of old glass is another feature that should be noticed. An old pane of any size at all, hung up or held lightly and flicked with the finger-nail, will ring like a bell. Tried in the same way, modern glass gives a much duller note, scarcely vibrating at all. But this test is of course impossible in the case of glass which is leaded up, the lead-lines stopping all vibration, and so can only be applied to isolated pieces.

Stained-glass in its original leading is comparatively rare. The glass being far more durable than the lead, it is occasionally necessary to remove the rotten calmes and to replace them with new ones. In some cases, however, the old glaziers did their work so well that the original calmes are still found in place. This is, if anything, a more certain sign of antiquity than even corrosion itself. The peculiarities of old leads are set forth in a small Appendix, but wherever possible, fragments of different dates should be secured for comparison with modern leads. There is, however, in this case, little danger of confusion between old and new. The old cast leads, besides being of different form to any used nowadays, are hard and brittle, and so coated with light grey or whitish oxides that they chip rather than scratch under a knife-blade, whilst modern lead-lines are clean and so soft that they can be scraped with the thumb-nail. If the lead-lines of any specimen do not exceed one quarter of an inch in width, and are rotten, brittle, and caked with chalky or lime-like deposits, the work is genuinely old—earlier than the middle of the sixteenth century, for certain.

Sometimes when a large number of mixed scraps have been purchased some of them may be found to fit against others, and in this case can be re-leaded in their original position, their value accruing in an ever increasing ratio the more pieces are added.

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Very often the old lead calmes provide a hint as to this re-assembling of the glass. No matter how crumpled or battered such leads may be, they should be carefully flattened and laid together as nearly as possible in their original position, so that any scraps of glass accompanying them may be tried in place to see if they will fit. A very convenient method of doing this is to place a large stout sheet of glass level on supports about three feet above the ground—the backs of two chairs will serve very well—and then, darkening the room, to place a lamp upon the floor under the glass. Scraps and fragments placed upon the flat glass are illuminated from below and can be seen through and moved about at the same time. In this way they can be tried in juxtaposition in any number of combinations, and it will readily be seen if any of them belong together. Once a panel, or portion of a panel, has been made up, the panes composing it should be laid in their places on a sheet of paper and their outlines traced by a pencil run round their edges. This sheet of paper will serve the glazier as a “cut-line” drawing when the panel is handed to him for re-leading. In no case should he be allowed to grose, cut, or otherwise alter the old edges of the glass. There are slovenly workmen who insist on doing this, claiming that they cannot re-lead the glass without it. It is quite true that in some of the old glazing the panes are very close together at the edges—as indeed they should be for good workmanship—and re-leading such glass calls for considerable time and care. But where leads have been, leads can go again, and moreover the heart of modern leads is almost always thinner than in the old calmes, so that no matter what difficulty is presented by re-glazing it is an easier business now than when the glass was first made. When panes are broken it must be admitted that every lead-line carried through a crack does make the pane larger by the width of its heart, and sometimes, especially in faces, the drawing is considerably distorted by this means. In this case, and in all others where the work is so delicate that new intruding lead-lines have a clumsy appearance, the best plan is to “plate” the broken pane—have it leaded up between two pieces of thin sheet glass of the same size and shape. This holds all the broken



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pieces in position, no matter how small they may be, and keeps out the weather quite as satisfactorily as any number of lead-lines.

The strangest notions are held by some glaziers as to the differences between old and modern glass. One of these—believed in by many men who ought to know better—is that each transmits light in a different manner from the other. I have known even skilled glass-painters assert most gravely that if the sun shining through a window throws coloured shadows on the pavement or on a sheet of white paper held up for the purpose, the transmitted colour is a proof that the glass is ancient. Others insist that only modern light throws a coloured shadow. One notion is as ridiculous as the other; but no amount of persuasion seems to be of any use when either has been once laid down as a fact by such acute observers.

The camera, however, is often a valuable aid in detecting modern material in panels purporting to be of antique glass throughout. Its evidences vary, so that no absolute rules can be laid down for the guidance of the collector, though in the majority of cases the modern panes betray themselves by photographing lighter than the old glass surrounding them. Sometimes exactly the reverse occurs; but the point is that, whether lighter or darker, modern glass affects the camera differently from old. Perhaps a panel that to the unaided eye appears harmonious throughout—the glass apparently all of one period and the painting the work of one hand—reveals itself in a photograph as a patchwork of light and dark. With such a photograph for comparison, it should be a comparatively easy matter to ascertain by examination of the original window which panes are old and which are modern.

The most useful tests for determining the age of glass can only be learnt by studying the characteristics of each period, but it is well to bear in mind that the forger nearly always shirks the more laborious and tedious portions of his work, which the more conscientious mediaeval glass-painter very rarely did. Insertion for instance. I have never seen a forgery that showed a complete example of insertion. It is easier to break the glass around the inserted pane—and, if anything, its antique appearance would be

## PLATE XXXIII

### CANOPIES

Note: An early canopy occurs on Plate i, fig. 3, and another larger and more detailed upon Plate ii, fig. 3.

Fig. 1. From Wells Cathedral. Circa 1330. A typical Decorated canopy. Flat, square shafts and turrets with steep pinnacles and floreated crockets and finials. The ogival arch over subject panel is less frequent than the straight-sided gable, and very commonly brickwork is alternated with the little windows on the shafts; but in all other respects this canopy may be described as characteristic of the early fourteenth century. Blocks of colour break the shaftings, etc., at intervals.

Fig. 2. From New College, Oxford. Circa 1360. A Transitional canopy—Decorated to Perpendicular. Circular shafts and turrets, battlements drawn with some attempts at perspective, rich finials and no crockets whatever. Very little potmetal colour except in backgrounds and under soffit of main arch.

Fig. 3. From Amesbury, Wilts. Circa 1400. A typical early Perpendicular canopy. White and yellow stain throughout, colour being confined to backgrounds, little portions of which are leaded into three upper central arches. Angular shafts, slender and steep pointed turrets, with simple crockets and finials.

Fig. 4. From Winchester Cathedral. Circa 1520. A transition canopy—Perpendicular to Renaissance. Classic planning throughout on the level lines of an entablature, but details entirely Gothic, except for the panelled soffit under frieze. General effect heavy and poor.

Fig. 5. From St Patrice, Rouen. Circa 1520. Renaissance canopy. Details entirely classic, but general effect of white details on coloured background strongly reminiscent of the arrangement of a Gothic canopy.

Fig. 6. From Sir Joshua Reynolds's window, New College, Oxford. Date 1777. Pseudo-Gothic canopy in outline and yellow stain on square panes of white glass.

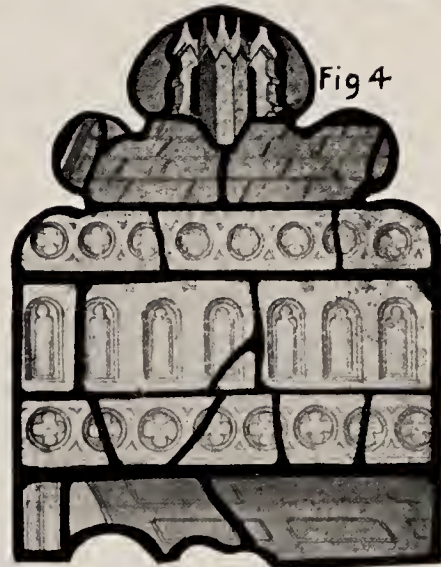
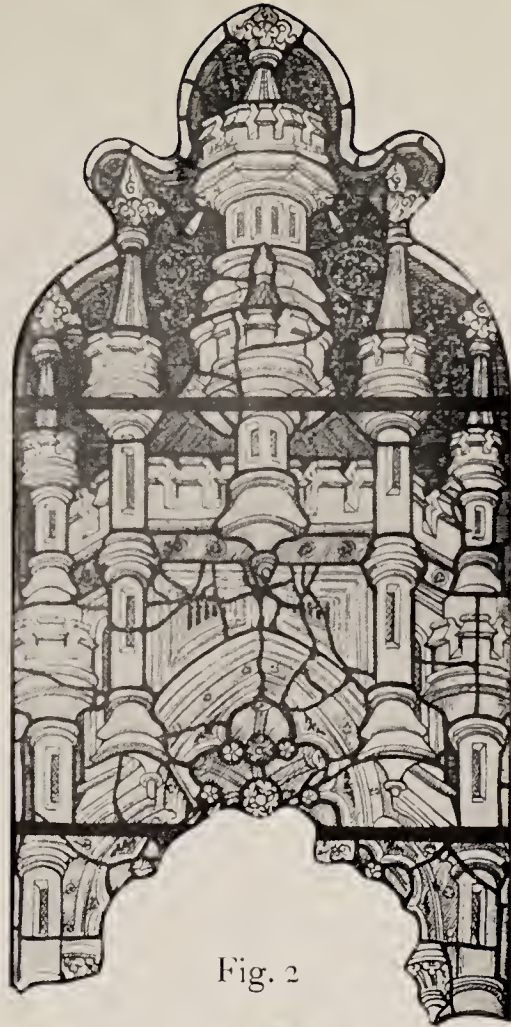








PLATE XXXIII







## THE COLLECTOR

enhanced by such a breakage. Annealing, too, is a troublesome business, and I have never known a forger attempt it. Besides, these little *tours-de-force* make glass all the more interesting and so focus attention upon it, which is precisely what the forger desires to avoid. His commonest slip is in abrasion, for nearly all forgeries fail here most clumsily, hydrofluoric acid being used in the most stupid and barefaced way. As has been remarked elsewhere, its effects can be distinguished from those of genuine abrasion at a glance. The old method was to grind off the flashed surface by hand with emery powder or some equally hard substance. This left the depressions covered with tiny scratches, whereas whenever acid has been employed, the soft, smooth edges and surface betray the use of some liquid agent at once. The glass has been washed off, not ground off. It is impossible to confuse the appearance produced by the two methods.

But forgers of old English glass are mere bunglers beside those of the Continent, and more especially when compared with the more skilful copyists of old Swiss panels. The forgery photographed on Plate XXXI is a very crude affair, painted apparently for practice by a prentice hand, and calculated to deceive no one with the slightest experience of stained-glass. Its shortcomings reveal themselves at a glance by comparison with the genuine panel at its side. The poorly drawn modern figure cannot for a moment compare with the vigorous certainty of the earlier painter's touch. The modern inscriptions are slovenly, and the painting—especially of the shield, crest, and architecture—is loose and washy to the last degree. But the really skilled forgers of Swiss glass are guilty of no such amateurish errors as these. They form a veritable aristocracy of crime amongst glass-forgers, and the patience, the knowledge, the ability, and minute, loving care the rascals put into their work cannot be overrated. One may as well confess frankly that any attempts to advise the collector who has dealings with them are useless. Only with a life-long knowledge of the subject can he hope to detect that their copies, often from genuine examples, are of modern workmanship. They take such a whole-hearted delight in deception that all tests fail except



## A HISTORY OF ENGLISH GLASS-PAINTING

one—and that one difficult even to put into words and impossible to impart. I mean that strange additional sense—the *flair* of the expert—which only comes with time and intimate personal experience of the subject. Real old work has a peculiar character about it—a delicate impalpable shade of difference—that cannot be simulated, any more than it can be described. One suspects a panel, perhaps, and it is almost impossible to say why. With all the forger's skill he misses an intangible *something* that years alone can print on glass; and an expert can detect its absence. And this is as well, for otherwise the forgers of Swiss glass would have it all their own way. Their stain is like the old stain; old matt being smooth to the touch they treat their new shadows with a light grinding of pumice stone that gives it all the soft feel of the old; they grose their edges instead of using the diamond and dirty down the new grooving with paint or acid, so that even when the lights are pulled to pieces the panes betray no signs of modern work. They scour over acid abrasion with emery till every trace of the acid has disappeared, and then treat the new scratches with fat to give them the worn smoothness of old age. They buy broken fragments of genuine old glass and glaze them up in new panels, even going to the tedious extreme of drilling corrosion-holes in new added pieces to make them resemble the old.

Warnings are useless. The collector who relies on his own judgment in buying old Swiss panels will buy experience, and little else, and will pay too much for it. Let him apply what tests he will, the cleverest brains on the Continent will have anticipated them with sure knowledge and foresight. If he can afford Swiss panels he can afford expert opinion. It is cheaper to buy the two together. It will be worth more than expert's fee to see him exercise his knowledge. The panel that perplexed the amateur will reveal its secrets to what apparently is the most casual inspection of the trained eye. A few minutes spent in turning it over and looking at it intently, first on this side, then on that—a rub or two with the finger, perhaps—and the cheat stands revealed. But when it comes to conveying such knowledge by written instructions—one might as well use the deaf and dumb language to impart to a student the touch of a *maestro* upon the violin.

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## APPENDIX B

A list of Swiss artists in glass of the fifteenth, sixteenth and seventeenth centuries. All names are of glass-painters unless otherwise indicated. Dates are those of birth and death wherever these could be ascertained. When they were not obtainable, dates of earliest and latest known works are given.

Amiet, Urs	Solothurn	1560-1585
Amman, Jost (Draughtsman)	Zurich and Nuremberg	1539-1591
Asper, Hans (Draughtsman)	Zurich	
Back (or Bock), Hans		1550
Baldewin, Peter	Zofingen (Aargau)	1570-1580
Baldewin, Peter (the younger)	Zofingen	1601
Baldewin, Josua	Zofingen	1579
Baldewin, Jörg	Aarburg	1600-1617
Baldung, Hans (surnamed Grien)		1479-1552

16B

16B.

Ban, Ulrich (the younger)	Zurich	1536-1576
Ban, Hans Heinrich	Zurich	1536-1582
Ban, Hans Heinrich	Freiburg	1522-1599
Ban, Heinrich	Freiburg	1550-1580
Beham, Hans Sebald		1500-1550
Berger, Hans Jacob	Zurich	1602-1626
Bickard, Abraham	Berne	1570-1600
Bilger, Paul	Basle	1580-1605
Bluntschli, Rudolph	Zurich	1499-1565
Bluntschli, Niclaus	Zurich	1518-1605

16B

16B

16B

16B  
1568

# APPENDIX B

Bluntschli, Hans Balthasar	Zurich	1529-1587
Bochli, Georg	Solothurn	1560-1585
Bochli, Wolfgang	Solothurn	1560-1585

**WB** **WB** **WB** **WB**

Brandenburg, Niclaus	Zug	1550
Brennwald, Joachim	Zurich	1546-1624
Brennwald, Hans Georg	Zurich	1583-1615
Breni, Hans Ulrich	Rapperswyl (St Gall)	1643
Brunner, Niclaus	Solothurn	1560-1585
Brunner, Joachim	Brugg (Aargau)	1545-1546
Brunner ("der Glasmaler von Brugg")	Brugg	1581
Däntzler, Hans	Zurich	1588-1652
Diebold, Hans	Zurich	1568-1631
Diebolt, Hans Caspar	Zurich	1600-1674
Dünz, Hans Jacob		1600-1612

*Hans Jacob Dünz*

Dür, Melchior	Solothurn	1560-1585
Egeri (or Aegei) Carl von	Zurich	1510-1562

**AE**

Egeri, Hans Rudolph von	Zurich	1550-1593
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**HE**

Engelhart, Hans Heinrich	Zurich	1557-1612
Erhard, Tobias,	Winterthur	1569-1622

**E** **E** **E** **T** **E**

Ermatingen, Hans Ulrich	Schaffhausen	1580-1600
Fallenter, Franz	Lucerne	1580-1642

**FF**

Fietz, Georg, or Jörg	Zurich	1528-1591
Fluckiger, Hans	Burgdorf (Berne)	1621
Forrer, Daniel	Schaffhausen	1580-1600
Fridli, Burkard	Zurich	1536-1572

**BF** **BF**



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Fries, Hans Rudolph	Zurich & Schaffhausen	1597-1661
	<i>HRF.</i>	
Frigk, Ulrich	Zurich	1532-1600
Frölicher, Wolfgang	Solothurn	1560-1585
Fuchs, Hans (or Johann)	Lucerne	1434-1437
	<i>if.</i>	
Fuchsli, Jacob	Bremgarten (Aargau)	1559
Fuchsli, Hans	Bremgarten	1612
Fuchsli, Schultheiss	Bremgarten	1597-1598
Funck (or Funk), Hans	Zurich and Berne	1483-1540
	<i>HF</i>	
Füsslin, Walthart	Freiburg	1550-1580
Gaisberger, Franz (Draughtsman),	Constance	
Gantinn, H. J.		1628
	<i>HGantinn.</i>	
Graf, Urs (Draughtsman)	Basle	
Grimm, Marx	Schaffhausen	1580-1600
Grissach, Peter von	Freiburg	1550-1580
Gryff, Hans Caspar	Freiburg	1550-1580
	<i>HCG</i>	
Gugger, Urs	Solothurn	1560-1585
Gut, Hans Jacob	Berne	1570-1600
	<i>HG.</i>	
"Der Glasmaler zu Bischofszell" (Thurgau)		1624
"Der Glasmaler von Rapperswyl" (St Gall)		1591
"Der Glasmaler zu Schwyz"		1611-1612
Haffner, Thomann	Solothurn	1560-1585
Haldenstein, Ulrich	Zurich	1542-1611
Hegener, Jacob	Zurich	1558-1615
Hegener, Hans Heinrich	Zurich	1600-1658
Heimo, Wilhelm	Freiburg	1550-1580
Hinderegger, Vizenz	Lucerne	1580-1600

# APPENDIX B

Hirt, Caspar	Zurich	1634-1700
Holbein, Hans (the younger)		
(Draughtsman)	Basle	1495-1543
Holzhall, Heinrich	Zurich	1503-1570
Hör, Andreas	St Gall	1503-1582

*Al. 1564. Al. 1563. Al.*

Huber, Caspar	Zurich	1605-1631
Hübschi, Hans Jacob	Berne	1570-1600
Hug, Hans Melchior	Zurich	1500-1561

*Al. HVG. Al. HVG. Al. HVG.*

Jäggli, Hans	Winterthur (Zurich)	1598-1631
Jegly, H. V.		1645

*H. Jegly. H. Jegly.*

Jerli, Lienhard	Freiburg	1550-1580
Jost, Hans	Aarau	1583
Kachler, Johannes	Uri	1597-1628

*SK SK. SKC*

Keller, Anthony	Schaffhausen	1580-1600
Keller, Hans Balthazar	Zurich	1600-1632
Keller, Salomon	Zurich	1582-1642
Kessler, Ulrich	Schwyz	1550-1560
Kolmann, Hans Friedrich	Schaffhausen	1580-1600
Kübler, Hans Werner	Schaffhausen	
Kübler, Werner	Schaffhausen	

*WK*







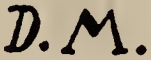
Kübler, Johann Sebastian	Schaffhausen	
--------------------------	--------------	--

*SK*

Kuhn, W.		1613-1614
Kuster, Oswald	Winterthur (Zurich)	1567-1616



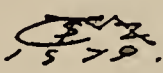
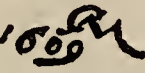
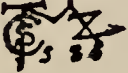

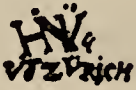
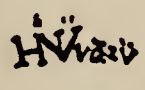


# A HISTORY OF ENGLISH GLASS-PAINTING

Lang, Daniel	Schaffhausen	1580-1600
		
Lang, Hieronymus	Schaffhausen	1580-1600
(There would appear to have been two painters of this name working in Schaffhausen during the same period.)		
Lang, Hans Caspar	Schaffhausen	1580-1611
		
Lavater, Hans	Zurich	1549-1595
Lindinner, Mathias	Zurich	1562-1611
Lindinner, Hans Heinrich	Zurich	1587-1626
Lindtmeyer, Daniel (Draughtsman)	Schaffhausen	1561-1608
		
Lingk, Bartolomäus	Zurich and Strasbourg	1572-1632
		
Lipp, Hans	Lucerne	1580-1600
Löuw, Heinrich	Zurich and Aarau	1523-1576
Lurer, Joseph	Chur (Grisons)	1589
Manuel, Hans Rudolph (sur- named Deutch)	Berne	1530-1581
		
Manuel, Niklaus (Draughts- man)	Basle	1518
Manuel, Eugen (Draughts- man),	Basle	1542
Margkgraff, Eckhardt	Lucerne	1580-1600
Mecken, Israel van		
		
Menlin	Basle	1334
Meyer, Dietrich	Zurich	1572-1658
		
Meyer, Heinrich	Zurich	1502-1569
Meyer, Hans Conrad	Zurich	1694-1766

## APPENDIX B

(Hans Conrad Meyer was the last survivor, not only of the Zurich school, but of all the long line of glass-painters throughout Switzerland, and with his death in 1766 the history of this national art comes to an end. G. A. Wannenwetch, of Basle—possibly a descendant of the Georg Wannenwetch of that town who died in 1605—has been mentioned by Dr W. Lübke (Ueber die alten Glasgemälde der Schweiz) as being the last of the Swiss glass-painters, but as he died in 1763 Hans Conrad Meyer survived him by three years.)

Most, Hans Jacob	Zurich	1601-1629
Müller, Paulus	Zug	1630
Müller, Michael	Zug	1667
	<i>am Zug</i>	
Müller, Jacob	Zurich	1565-1611
Mullibach, Hans	Zurich	1490-1548
Murer, Jodocus	Zurich	1530-1580
	<i>M</i>	
Murer, Christoph	Zurich	1558-1614
		
		
		
Murer, Josias	Zurich	1564-1630
	<i>Josias Murer. Zürich</i>	
Nüscheler, Heinrich	Zurich	1550-1616
Nüscheler, Christoph	Zurich	1589-1661
Nüscheler, Hans Jacob	Zurich	1583-1654
Nüscheler, Hans Jacob (the younger)	Zurich	1614-1658
Nüscheler, Oswald	Zurich	1600-1635
Nüscheler, Hans Caspar	Zurich	1605-1652
Nüscheler, Hans Ulrich	Zurich	1645-1707
Nüscheler, Johann Heinrich	Zurich	1645-1707
		
Peyer, Mathias	Zurich	1563-1611



# A HISTORY OF ENGLISH GLASS-PAINTING

Rady, Lux	Basle	1580-1605
Rehbach, Caspar	Lucerne	1580-1600
Reidet, "Der Jung"	Freiburg	1550-1580
Rieher, H.	Basle	1580-1605

(See list of unidentified signatures)

Ringgli, Gotthard	Zurich	1575-1635
Ringler, Ludwig	Basle	1542-1607
Rippel, Niclaus	Basle	1580-1605
Rordorf, Hans Heinrich	Zurich	1591-1680

(See list of unidentified signatures)

Rütter, Hans Peter	Zurich	1550-1610
Rutter, Hans Jacob	Zurich	1581-1620
Schad, Hans Heinrich	Zurich	1560-1598
Schännis, Hans von	Zurich	1606-1683
Schärer, Hans Felix	Zurich	1582-1636
"Der nüw Schiltbrenner von Wyl" (St Gall)		1585
Schmid, Hans Theodor	Zurich	1538-1582
Schmitter, Hans Melchior	Wyl (St Gall)	1602
Schmucker, Andreas	Stein-am-Rhein	1592
Schnyder, Heinrich	Schaffhausen	1580-1600
Schön, Hans	Zurich	1546-1586

• H?

Schryber, Tobias	Schaffhausen	1580-1600
Schwaller, Jacob	Solothurn	1560-1585
Seebach, Hans Georg	Zurich	1552-1603
Seebach, Peter,	Zurich	1540-1605
Seebach, Ulrich	Zurich	1498-1552
Spengler, Jacob, senr	Constance	1614

• I.S. • i.S.P. • I.SP.

Spengler, J. A.	Constance	1621
	<i>W.S.P.</i>	
Spengler, Wolfgang	Constance	1656

1 6 7 i W.S.D. in Constance. W.S.P. W.S.P. 1621

# APPENDIX B

Spengler, J. M.	Constance	1685
	<i>MS P Constan</i>	
Spengler, M. S.	Constance	1668
	<i>MS SP.</i>	
Spengler, Johannes Georg	Constance	1700
	<i>Johann Georg Spengler</i>	
Springlin	Zurich and Nuremberg	1481
Sprüngli, Hans Jacob	Zurich	1559-1637
Spyser, Hans (surnamed Zwynger)	Bischofszell (Thurgau)	1595
Stadler, Gottfried	Zurich	1616-1664
Starch, Wilhelm	Schaffhausen	1580-1600
Stimmer, Tobias	Schaffhausen	1534-1590
Strasser, Johann Rudolph	Zurich	1662-1687
Stricker, Jacob	Uri	1543
Struss, Rochius	Schaffhausen	1580-1600
Struss, Rudolph	Schaffhausen	1580-1600
Sur, Hans	Basle	1580-1605
Suter, Heinrich	Baden (Aargau)	1589
Sybold, Samuel	Berne	1570-1600
Tetzeler, A. B.		
Tetzler, Hans Wilhelm	Schaffhausen	1580-1600
Thomann, Hans	Zurich	1525-1567
Thöucher, Hans Heinrich	Zurich	1594-1618
Thüring, Walter	Berne	1570-1600
Tubenmann, Hans Balthazar	Zurich	1563-1607
Usteri, Hans	Zurich	1536-1587
Vischer, Marx Sigmund	Basle	1580-1605
Vischer, Hieronimus	Basle	1580-1605
Vischer, G. A.	Basle	1580-1605
	<i>Vischer.</i>	
Weber, Johann Ulrich	Zurich	1678-1733



# A HISTORY OF ENGLISH GLASS-PAINTING

Wägmann, Hans Heinrich    Zurich and Lucerne 1557-1626

*HW*

Walder, Hans	Zurich	1558-1608
Wannenwetch, Georg	Basle	1580-1605
Wannenwetch, G. A.	Basle	1763
Weber, J.	Lucerne	1662-1669

*IWeber*

*J. Web: M. W.*

*Web:*

Weerder, Heinrich	Zurich	1540-1585
Wirt, Niclaus	Wyl (St Gall)	1585

*+ NW*

*NW*

*NW*

*+ NW*

Wirz, Kaspar	Zurich	1592-1632
Wiss, Heinrich	Zurich	1546-1577
Wolf, Hans Wilhelm,	Zurich	1638-1710
“Der Wappenbrenner zu Schwyz”	Schwyz	1562
Zeiner, Lux	Zurich	1488-1511
Zender, Hans	Berne	1570-1600
Zumbach, Adam	Zug	1575


*A.Z.B.*

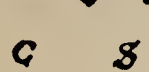
*AZ: Bach.*


Züner, Bernhard	Schaffhausen	1580-1600
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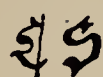
I have not been able to identify the following twenty signatures,  
most of which are from the Vincent collection.

## UNIDENTIFIED SWISS SIGNATURES

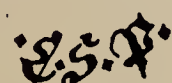
 From the Vincent Collection (No. 38).

 „ „ „ (No. 146).

 „ „ „ (No. 175).



„ „ „ (No. 153).

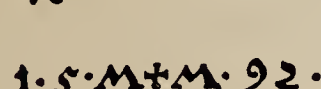




From Rathausen (date 1616).



From the Vincent Collection (No. 160).


 From the Vincent Collection (No. 170) (also occurs at Rathausen).



From the Schützenhaus, Basle.



From the Vincent Collection (No. 181).

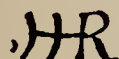


„ „ „ (No. 144).

(Ottin attributes this to Daniel Lindtmeyer, but it does not in the least resemble his usual sprawling monogram.)



From the Vincent Collection (No. 255).



„ „ „ (No. 277).



From the Warnecke Musterblatter (No. 20).

(Possibly Hans Heinrich Rordorf of Zurich, or Hans Rieher, of Basle.)



# UNIDENTIFIED SWISS SIGNATURES

<sup>M.W.</sup>  
**SA.76.3an** From the Vincent Collection (No. 278).

**M** From the Burki Collection, Berne (date 1539).

**W.S** From the Vincent Collection (No. 274).

**m** „ „ „ (No. 350).

(This signature is not unlike that of Jodocus Murer, of Zurich, but it also has some slight resemblance to the following.)

**FJM** From the Vincent Collection (No. 351).

**m** „ „ „ (No. 126).

**AB** „ „ „ (No. 133).

## APPENDIX C. THE LEADS.

J : S 16 18

I H 1730

G D 1745

**I**

CAST LEAD OF THE MIDDLE AGES.

**I**

MILLED LEAD OF THE SEVENTEENTH AND  
EIGHTEENTH CENTURIES.

**I I**

MODERN LEADS.

**T**HE earliest calmes (from calamus=a reed) were of cast lead, used without any further preparation beyond the trimming off of ragged edges with a knife. The treatise of Theophilus contains instructions for the preparation of the moulds, which were made in wood as well as iron. These earliest leads are comparatively narrow, rarely exceeding three-eighths of an inch in width or thickness. More commonly they are about half that size, but are occasionally found less even than one-eighth of an inch in width. The exterior portion—the flange—was flat, the inner heart which lay between the panes being a little stouter, their external appearance being shown admirably in the large medallion on Plate XXIX (fig. 2). The grooves to take the glass on either side are comparatively shallow and are concave in form, as shown by the section fig. 1 above. The earlier Swiss leads appear to have been hammered, to render them thinner and perhaps to give the calmes greater length, but in section they remained much the same as before. The introduction of the lead-vice early in the sixteenth century rendered hammering unnecessary. It consisted then as now of two milled wheels—spindles—revolving edge to edge with a narrow space between them. On either side of this space are the cheeks which smooth down and compress the flanges when the spindles, gripping the heart between their milled edges,



## A HISTORY OF ENGLISH GLASS-PAINTING

force the calme through the aperture. It is the form of the spindles which determines the shape of the grooves, the cheeks only acting upon the flanges forming the exterior sides of the lead. In Switzerland it was a common practice after the glass was leaded to coat both hammered and cast leads with a thin coat of solder, instead of confining its use to the joints where one piece of lead met another. This treatment doubtless renders the leads more durable, but by covering up all that portion of the calmes which can be seen from the exterior it disguises the leads, so that unless the glass is removed it is only with difficulty that one can tell whether they are milled or cast.

The earliest milled leads, though thinner, were wider than the cast calmes preceding them. The spindles cut a deeper groove, square instead of concave in section (fig. 2) and its bottom surface—that next the heart of the lead—is marked on either side by the milling of the edges.

This was early taken advantage of by the glaziers, who had their initials and dates punched upon the spindle-edges so that they might be imprinted on the lead. Such an early seventeenth-century mark is shown above, together with some of later date (figs. 4, 5, 6).

In the eighteenth century the leads are of the same form, flat flanges beaded at the edges, and with square grooves, but whilst they are squeezed out thinner they become wider in the flange; sometimes being five-eighths of an inch across, and consequently much more fragile. The straight wide lead cutting diagonally across the medallion already mentioned (Plate XXIX, fig. 2) dates from the eighteenth century and may conveniently be compared with the earlier leads around it. So weak were these flat leads that early in the nineteenth century cheeks were cut which gave a lead with segmental flanges (fig. 3) and this pattern, sometimes beaded and sometimes plain, has remained in use ever since.

The early cast leads are perhaps the most reliable single evidence of the genuineness of old stained-glass, but they rarely occur, owing to the almost inevitable releadings that have been called for during the four centuries since they fell into disuse.

## APPENDIX D\*

FOR the convenience of the student desirous of inspecting glass of each period a list of places where windows or important fragments may be seen is given below. Where the name only of the town is given its principal church is implied: in the case of the head cities of a diocese, the cathedral; of smaller towns or villages, the parish church.

The earliest fragment of stained-glass in England is that portion of a twelfth-century Jesse window in York Minster to which allusion has been made in the introductory chapter. Mr Winston cites another contemporary example, also a fragment of a Jesse window, as existing in Canterbury Cathedral, but if he was correct in his assumption as to its early date it must have been removed since his time. Dr Nelson is of opinion that portions of the two medallion windows in the north choir aisle, the "Siege of Canterbury," etc., in the triforium over them, and the large figures in the clerestory were all painted previous to the thirteenth century. There are also remnants of twelfth-century work at Brabourne (Kent), Dorchester Abbey (Oxon), Lanchester (Durham), Lincoln Cathedral, Wilton (Wilts.), Rivenhall (Essex) and York Minster.

Windows or portions of windows dating from the thirteenth century may be seen at:—

(Berkshire) Aldermaston, North Moreton.

(Cambridgeshire) Babraham.

(Cornwall) Laneast.

(Derbyshire) Dalbury.

(Essex) White Notley.

(Hampshire) Grateley, Winchester (St Cross).

(Herefordshire) Brinsop.

\* For this list I am indebted to the kindly courtesy of Dr Philip Nelson, F.S.A.



## A HISTORY OF ENGLISH GLASS-PAINTING

- (Herts.) Hitchin.
- (Kent) Canterbury Cathedral, Chartham, Edenbridge, Harbledon, Preston, Stockbury, Westwell.
- (Leicestershire) Twycross.
- (Lincolnshire) Lincoln Cathedral.
- (Middlesex) Westminster Abbey.
- (Northants.) Aldwinkle (St Peter's), Holdenby.
- (Notts.) Southwell Cathedral.
- (Oxfordshire) Dorchester Abbey, Kidlington, Oxford (Merton College), Stanton Harcourt, Stanton St John, Waterperry.
- (Shropshire) Astley Abbots, Kinlet.
- (Staffordshire) Checkley.
- (Surrey) Chaldon, Oakwood, West Horsley.
- (Sussex) North Stoke.
- (Warwickshire) Arley.
- (Wiltshire) Amesbury, Salisbury Cathedral, Wilton.
- (Yorkshire) Beverley Minster, York Minster and St Deny's.

Fourteenth-century examples exist at:—

- (Berkshire) Chetwode, Hagbourne East, Long Wittenham, Stanford in the Vale.
- (Buckinghamshire) Aston Clinton, Chesham Bois, Hitcham, Langley, Lathbury.
- (Cambridgeshire) Chesterton, Ely, Trumpington, Wimpole.
- (Cheshire) Grappenhall, Moberley.
- (Cumberland) Carlisle, Cross Canonby, Crosthwaite.
- (Devon) Beer Ferrers, Exeter Cathedral, Haccombe.
- (Derbyshire) Norbury.
- (Dorset) Bradford Peverell.
- (Essex) Great Dunmow, Pebmarsh, Roydon, Shalford, Sheering, Stebbing, White Roding, Wimbish, Woodham Ferrers.
- (Gloucestershire) Arlingham, Aschurch, Bagedon, Breedon, Bristol (St Mary's), Bristol Cathedral, Deerhurst, Gloucester Cathedral, Tewkesbury, Tidenham, Westonbirt.
- (Hampshire) Winchester Cathedral, Winchester (St Cross).
- (Hereford) Hereford Cathedral.

## APPENDIX D

- (Hertfordshire) Barley, Buckland, Clothall, Letchworth, Offley, Pirton, St Albans Cathedral, Stocking-Pelham, St Paul's Walden, Wheathampstead.
- (Huntingdonshire) Covington.
- (Kent) Bishopsbourne, Canterbury Cathedral, Chartham, Fawkham, Kingsdown, Selling, Smeeth, Snodland, Southfleet, Trottescliffe, Upchurch, Upper Hardres, Warehorne, Willesborough.
- (Lancashire) Halsall.
- (Leicestershire) Appleby Magna, Breedon, Broughton Ashley, Carlton-Curliew, Coston, East Langton, Evrington, Garthorpe, Kirkby-Bellars, Lockington, Peckleton, Radcliffe on Wreake, Thornton, Thurstaston.
- (Lincolnshire) Alford, Anwick, Ashby-cum-Fenby, Barnoldby-le-Beck, Barton-on-Humber, Claypole, Carlton-Scroop, Covenham St Bart, Deaping St James, Gedney, Gt Gonerby, Haydor, Kingerly, Lea, Lincoln Cathedral, Ludborough, West Rasen, Tealby, Wrangle.
- (Middlesex) Westminster Abbey.
- (Norfolk) Elsing, Griston, Mileham, Mantby, North Elmham.
- (Northamptonshire) Harleston, Kelmarsh, Lowick, Northampton (St Sepulchre), Peterborough Cathedral, Stanford.
- (Northumberland) Whalton, Lowick.
- (Nottinghamshire) East Bridgeford, Fledborough, Popplewick, Retford, Southwell.
- (Oxfordshire) Asthall, Beckley, Bloxham, Dorchester, Headington, Kidlington, Marsh-Baldon, Christ Church Cathedral, Oxford (Merton Chapel, New College), Waterperry.
- (Rutland) N. Luffenham, Whitwell.
- (Shropshire) Alberbury, Ashford Carbonell, Battlefield, Beckbury, Clungunford, Cound, Delbury, Eaton-under-Eyton, Heywood, Hopesay, Hughley, Kinlet, Ludlow, Morville, Munslow, Pitchford, Richards Castle, Shrewsbury (St Mary), Sidbury, Tugford, Worfield, Temple-Rothley.
- (Somerset) Farleigh Hungerford, Loxton, Wells Cathedral, Wells (Hall of Vicars Choral).



## A HISTORY OF ENGLISH GLASS-PAINTING

(Staffordshire) Blithfield, Bushbury, Checkley, Weston-under-Lizard.

(Suffolk) Buxhall, Dennington, Gt Bricet, Laxfield, Newton, Yaxley.

(Surrey) Wimbledon, Woking.

(Sussex) Firle, Newick.

(Warwickshire) Ettington Park, Mancetter, Merevale, Wolverton.

(Wiltshire) Bromham, Edington, Lydiard Millicent, Urchfont.

(Worcestershire) Chaceley.

(Yorkshire) Church Fenton, Darrington, High Melton, Ingleby, Ripon Cathedral, Roystone, Sandall Magna, Selby Abbey, York (Minster; St Martin's, Micklegate; St John's, Ouse Bridge; Holy Trinity; St Mary's, Castlegate; St Martin's-cum-Gregory).

Owing to the enormous number of windows painted in the fifteenth century, some scraps of Perpendicular glass may be found in most old country churches. Completely to enumerate such fragments would be an impossible task, so the following list must only be regarded as a selection of more or less complete specimens.

(Bedfordshire) Colmworth, Houghton Conquest, Luton, Totternhoe, Odell.

(Berkshire) Childrey, East Hendred, Inkpen, Ockwells Manor, Radley, Windsor (St George's).

(Buckinghamshire) Drayton Beauchamp, Haddenham, Hillesden, Maids Morton, Monks Risborough.

(Cambridgeshire) Cambridge (King's College), Leverington.

(Cheshire) Astbury, Moberley, Woodchurch.

(Cornwall) Lanteglos by Camelford, Lanteglos by Fowey, St Neots, St Teath, St Winnow, St Petherwin.

(Cumberland) Greystoke.

(Derbyshire) Bradbourne, Breadsall, Doveridge, Haddon Hall, Hault Hucknall, Morley, Norbury (Church and Hall).

(Devon) Ashton, Atherington, Bridford, Buckland Monachorum, Bundleigh, Callington, Calverleigh, Chagford, Clyst St George, Coleridge, Cothele, Doddiscombsleigh, Exeter (Cathedral;

## APPENDIX D

- Chapter House ; St Martin's), Kelly, Littleham, Mariansleigh, Sidmouth, Slapton, Tawstock, Tor Bryan.
- (Dorset) Cerne Abbas, Haselbury Bryan, Ibberton, Melcombe Regis, Melbury Bubb.
- (Durham) Durham Cathedral.
- (Essex) Clavering, Colville Hall, Horndon on the Hill, Lindsell, Margaretting, Orsett, Thaxted.
- (Gloucestershire) Buckland Church, Buckland Rectory, Bristol (Cathedral, St Mary's, Redcliffe, Temple Church), Chedworth, Cirencester, Fairford, Gloucester Cathedral, Lechlade, Micheldean, Thornbury, Wormington, Wynchcombe.
- (Hampshire) Bentley, Bramley, Christchurch Priory, Herriard, Mottisfont, Winchester (Cathedral, College, St Cross, St John's, St Peter's Cheesehill), Wyke.
- (Hereford) Allensmore, Ross (St Weonard's), Weobley.
- (Hertfordshire) Austey, Ardeley, Ashwell, Aston, Baldock, Barkway, Benington, Berkhamstead, Bygrave, Caldecote, Cheshunt, Cottered, East Barnet, Furneaux Pelham, Hunsdon, Kelsall, Newnham, North Mimms, Ridge, Royston, Sandon, St Albans (St Peter's), Stapleford, Stocking Pelham.
- (Isle of Wight) Gatcombe.
- (Kent) Appledore, Boughton Aluph, Canterbury (Cathedral, St Alphege's), Chart Parva, Chilham, East Malling, Farningham, Great Chart, Ivychurch, Knoll, Lullingstone, Lyminge, Nettlestead, Newchurch, Sandhurst, Sevenoaks, Snargate, Snodland, Stowting, West Wickham, Wye College.
- (Lancashire) Ashton under Lyne, Cartmel Priory, Cartmel Fell Chapel.
- (Leicestershire) Catthorpe, Cossington, Gaddesby, Harby, Launde Abbey, Leicester (Mayor's Parlour), Noseley Hall, Peatling Magna, Skeffington, Stockerston, Temple Rothley, Wanlip, Withcote (German).
- (Lincolnshire) Addlethorpe, Boston Guildhall, Edenham, Gedney, Grimoldby, Holywell, Ingoldsby, Kirton-in-Holland, Long Sutton, Lynwood, Mid Rasen, Pinchbeck, Ruskington, Stam-



## A HISTORY OF ENGLISH GLASS-PAINTING

- ford (Brown's Hospital; St John's Church, St George's Church), Tattershall, Winthorpe.
- (Middlesex) Fulham Palace, Greenford.
- (Norfolk) Blakeney, East Harling, Field Dallings, Heacham, Heckington, Little Walsingham, Long Stratton, Martham, Mulbarton, Norwich (St Andrew's; St John's; St Peter's, Hungate; St Peter's, Mancroft; St Stephen's), Outwell, Poringland, Pulham St Mary, Salle, South Creak, Stockton, Stratton Shawless, Swaffham, Taverham, Wigginhall.
- (Northamptonshire) Barnersall, Newton Broomhold, Northampton (St John's Hospital), Peterborough Cathedral, Rushden, Sudborough, Towcester (Talbot Inn).
- (Northumberland) Alnwick, Newcastle Cathedral.
- (Nottinghamshire) Halam, Lambery.
- (Oxford) Aston Rowant, Brightwell Baldwin, Burford, Drayton, Ewelme, Eynsham, Hampton Pyle, Mapledurham, Minster Lovell, Oxford (All Souls; Merton Library and Chapel; St Michael's Church; St Peter's; Trinity College Chapel), Swinbrook.
- (Rutland) Lyddington, Bede House.
- (Shropshire) Alveley, Atcham, Battlefield, Claverley, Cleobury North, Clungunford, Dorrington, Edgmond, Edstaston, Hopton Wafers, Little Ness, Ludlow, Petsey, Prees, Shawbury, Shrewsbury (St Mary's), Temple Rothby, Wheathill, Wroxeter.
- (Somerset) Banwell, Compton Bishop, Crewkerne, Curry Rivell, Glastonbury Abbey, Kingstone, Langport, Leigh-on-Mendip, Mells, Pilton, Ruishton, St Catherine's, Taunton (St Mary Magdalene), Trull, Watchet, Wells Cathedral, Winscombe, Winsford.
- (Staffordshire) Blore Ray, Broughton, Checkley, Seighford, Treyshull.
- (Suffolk) Bardwell, Barningham, Blythburgh, Bury St Edmunds, Combs, Hessett, Long Melford, Pettistree, Sotterley.
- (Surrey) Lambeth Palace, Oakwood, Witley, Woodmansterne.
- (Sussex) Battle, Eastergate, Etchingam, Hove, Penshurst, Poynings, Ticehurst, Westham.

## APPENDIX D

(Warwickshire) Caldecot, Coughton, Coventry (St Mary's Hall), Haseley, Newnham Paddox, Solihull, Warwick (Beauchamp Chapel), Wixford.

(Westmoreland) Bowness.

(Wiltshire) All Cannings, Coombe Bissett, Gt Somerford, Lydiard Tregoze, Malmesbury Abbey, Mildenhall, Salisbury (Hall of John Hall; St Thomas' Church).

(Worcestershire) Castlemorton, Elmley, Great Malvern, Little Comberton, Little Malvern, Oddingley, Ripple.

(Yorkshire) Almondbury, Bolton Percy, Coxwold, Elland, Emley, Guisborough, Methley, Nether Poppleton, Snape Castle, Sutton in the Forest, Thirsk, Thornhill, Thornton-in-Craven, Tickhill, Wales, Whorton, York (Minster; All Saints, North Street; St John's, Ouse Bridge; St Martin's-le-Grand; St Martin's-cum-Gregory).

(Wales) Diserth, Gresford, Llandyrnog.

The following examples are of various—and in some cases uncertain—dates, but are principally Fifteenth- and Sixteenth-century Glass:

(Bedfordshire) Barton in the Clay, Chicksands Priory, Flitwick, Langford, Marston Marteyne, Millbrook, Old Warden, Thurlough, Tilbrook, Pottesgrove.

(Berkshire) Brightwell, Cumnor, Charney Bassett, Compton Beauchamp, Farnborough, Harmell, East Ilsley, Letcombe Regis, Little Shefford, Reading, Shillingford, Shottesbrook, Sparsholt, Stratfield Mortimer, Sutton Courtney, Warfield, West Challow, West Hendred, Windsor, Old, Wytham.

(Buckinghamshire) Drayton Parslow, Linslade, Princes Risborough, West Wycombe, Weston Underwood, Wing, Weston Turville.

(Cambridgeshire) Bassingbourne, Foxton, Gazeley, Guilden Morden, Landbeach, Horsheath.

(Cheshire) Cheadle, Northenden, Over Peover, Tattenhall, Wilmslow.

(Cornwall) Mullion, Quethiock, St Kew, St Keyne, St Sampson.



## A HISTORY OF ENGLISH GLASS-PAINTING

- (Derbyshire) Ashbourne, Dronfield, Egginton, Killmarsh, West Hallam.
- (Devonshire) Abbots Bickington, Alwington, Ashcombe, Awliscombe, Broad Hempston, Bratton Clovelly, Cheriton Bishop, Christow, Combe Martin, Dalwood, Hennock, Hempstone Arundell, Highweek, Holne, Horwood, Huntshaw, Ipplepen, Loddiswell, Lustleigh, Newton Abbot, Northleigh, Offwell, Paignton, Peyhembury, Sampford Courtney, Shillingford, South Sydenham, Sutcombe, Weir Gifford, Wolborough, Yarnscombe.
- (Dorsetshire) Abbotsbury, Melbury Sampford, Milton Abbey, Sherborne, Shaftesbury, Upwey.
- (Durham) Croft, Raby Castle, Stanhope.
- (Essex) Arkesden, Bradwell, Gt Bardfield, Gt Burstead, Gt Horkesley, Gt Ilford, Hanningfield West, Lawford, Messing, Newport, Ockendon North, Romford, Roothing Abbot.
- (Gloucestershire) Alston, Apenhall, Ashton under Hill, Badgeworth, Berkeley, Bishops Cleeve, Bledington, Cheltenham, Daglingworth, Dymock, Dyrham, Edgeworth, Hartpury, Hayles, Hempsted, Iron Acton, Kempsford, Little Dean, North Cerney, Northleach, Pebworth, Preston on Stour, Prinknash Park, Rendcombe, Tredington, Yate.
- (Hampshire) Brainsholt, Froyle, Heckfield, Mitchelmarsh, Soberton, South Hayling, Timsbury, Winslade.
- (Herefordshire) Credenhill, Goodrich, Hampton Court, Kingsland, Madley, Richard's Castle, Sarnesfield.
- (Hertfordshire) Abbots Langley, Much Hadham, Sawbridge-worth, Wymondley.
- (Huntingdonshire) Hargrave, Woodwalton.
- (Isle of Wight) Bonchurch.
- (Kent) Adisham, Alkham, Ash, Bapchild, Bearstead, Bethersden, Bilsington, Bonnington, Brasted, Bredgar, Bridge, Brookland, Broomfield, Carbury St Peters, Charlton, Cheriton, Chillenden, Cliffe at Hoo, Ditton, Dodington, East Sutton, Eastwell, Elmstead, Eynesford, Fawkham, Fordwich, Godington, Goodnestone, Hawkhurst, Headcorn, High Halden, Hinxhill, Hoo St

## APPENDIX D

Werburch, Horsmonden, Ightham, Kemsing, Kennington, Leeds, Leigh, Littlebourne, Marden, Mersham, Molash, Monk's Horton, Monkton, North Cray, Offham, Rodmersham, Seale, Shadoxhurst, Sheldwich, Sittingbourne, Southfleet, Staple, Stone near Ashford, Stourmouth, Swanscombe, Tilmanstone, Tunstall, Wareham, Wickham Breaux, Wingham, Wittesham, Woodchurch.

(Lancashire) Blackburn, Chorley, Manchester Cathedral, Leyland, Radcliffe, Upholland.

(Leicestershire) Allextun, Bottesford, Brooksley, Congerstone, Cosley, Dothby, Edmundthorpe, Goadley Marwood, Leicester (All Saints Church), Loddington, Melton Mowbray, Nether-reale, Ratby, Rothley, Teddington, Wanlip, Woodhouse.

(Lincolnshire) Bag Enderby, Barkston, Boothby Bagnell, Buslingthorpe, Careby, Corby, Cotes, Denton, Grantham, Heckington, Kirkby East, Messingham, Metherringham, Muston, Normanton, Ranceby, Ropsley, Saltfleetby-all-Saints, Sappington, Somerley.

(Middlesex) Bedfont, Perivale, Pinner, South Mimms, Tottenham.

(Norfolk) Aylsham, Baconsthorpe, Bale, Bann, Banningham, Bradiston, Bressingham, Buckenham, Colby, Diss, Fincham, Gooderstone, Heydon, Holme Hall Church, Ketteringham, Lammas, North Tuddenham, Norton Sub Course, Norwich (St Andrews, St Swithins), Outham St Mary, Ringland, Sandringham, Shelton, Shipling, Stratford St Mary, Thorpe St Mary, Walsingham, West Dereham, Weston Longville, Wramplingham.

(Northamptonshire) Ashby St Legers, Barnwell, Burghley House, Castle Ashby, Catesby, Cransley, Chipping Warden, Gt Brington, Glendon Hall, Islip, Marholme Nassington, Newnham, Stamford (St Martins), Thenford, Uffington.

(Northumberland) Blanchland Abbey, Morpeth.

(Nottinghamshire) Annesley, Cossal, Cromwell, Cropwell Bishop, Gonalston, Hickling, Holme, Kelham, Kirklington, East Markham, South Markham, Newark, Nuthall, Nottingham (St Mary's), East Stoke, Sutton-on-Trent, Warsop, Woodborough.



## A HISTORY OF ENGLISH GLASS-PAINTING

- (Oxfordshire) Abingdon, Bicester, Binsey, Cassington, Charlton-on-Otmoor, Chastleton, Chinnor, Coombe, Gt Milton, Horley, Horspath, Idbury, Iffley, Kelmscott, Lewknor, Marston, Newington, Northleigh, North Monkton, Oxford (Balliol, Bodleian), Rousham, Sandford St Martin, South Leigh, South Newington, South Stoke, Stonesfield, Tadmarton, Warborough, Waterstock, Watlington, Westwell, Yarnton.
- (Rutland) Ayston, Clipsham, Empingham, Tixover, Whissendine.
- (Shropshire) Eyton, Shrewsbury (St Alkmond, St Giles), Stottesdon, Sunderne Castle.
- (Somerset) Ashington, Batcombe, Bishops Lydiard, Broomfield, Buckland Denham, Burrington, Butleigh, Charlinch, Cheddar, Chelvey, Chelwood, Cothelstone, Croscombe, Cuckington, Dinder, Dodington, Dunster, East Brent, Elworthy, Frome, Hatch Beauchamp, Huish Champflower, Huish Episcopi, High Ham, Kewstoke, Kingsbury Episcopi, Low Ham, Lympsham, Lyng, Marston Magna, Middlezoy, Milton Clevedon, Monksilver, Moorlinch, Nettlecombe, Orchardleigh, Othery, Pendomer, Penselwood, Pitminster, Podmore, St. Decumans, Selworthy, Stoke St Gregory, Swell, Tickenham, Trull, Weare, West Camel, Wells (Bubwith Almshouses, St Cuthbert's), Yeovilton.
- (Staffordshire) Bradley, Bramshall, King's Bromley, Kinver, Longdon, Sanden, Shelton, Tattenhall.
- (Suffolk) Ampton, Barton Mills, Cavenham, Chattisham, Combs, Cowlinge, Denham, Denston, Gipping, Great Fakenham, Hadleigh, Haughley, Herringfleet, Icklingham, Lavenham, Mellis, Rattlesden, Rickingham Inferior, Rickingham Superior, Shimplingthorne, Somerton, South Cove, Spexhall, Stansfield, Stanstead, Stoneham Aspal, Stratford St Andrew, Stratford St Mary, Thorndon, Thurlow, Walsham le Willows, Yaxley, Ufford.
- (Surrey) Bramley, Buckland, Burslow, Charlwood, Chelsham, Chipstead, Compton, Coulsdon, Crowhurst, Dunsford, East Horsley, Effingham, Horley, Lambeth Palace, Leatherhead,

## APPENDIX D

Limpsfield, Lingfield, Mersham, Mickleham, Newdigate, Nutfield, Ockham, Ockley, Oxted, Pysford, Send, Shere, Stoke D'Abernon, Thorpe St Mary, Walton-on-the-Hill, Warlingham, Woodmansterne, Worplesdon.

(Sussex) Alfriston, Ardingley, Arundel, Brede, Buxted, Crowhurst, Eastbourne, Fletching, Hurstmonceaux, Isfield, Linch, Newtimber, Poling, Rodmell, Rype, Shermanbury, Singleton, Slaugham, West Grinstead, West Stoke, Weston, Woodchurch, Woolbeding.

(Warwickshire) Arrow, Castle Bromwich, Cherington, Coventry, (Holy Trinity, St Michael's), Hafton, Hampton in Arden, Henley in Arden, Lighthorne, Oldburrow, Stratford-on-Avon, Ullenhall, Wasperton, Whichford, Whitchurch, Witherley, Wooton Warden, Wroxhall.

(Wiltshire) Ashton Keynes, Bishopston, Bremhill, Broughton Gifford, Christian Malford, Crudwell, Edington Priory, Gt Durnford, Hullavington, Imber, Lacock, Leigh, Mere, Minety, Oaksey, Rushall, Westwood, Yatesbury.

(Worcestershire) Birts Morton, Cotheridge, Droitwich, Eckington, Evenlode, Hadbury, Hadzor, Himbledon, Holt, Huddington, Ribbesford, Warndon, Worcester Castle, Wyre Piddle.

(Yorkshire: East Riding) Barmston, Beverley Minster, Boynton, Bubwith, Eastrington, Ellerton, Folkton, Holme-on-the-Wolds, Kingston-on-Hull, Leconfield, Lockington, Nunburnholme, Paghill, Roos, Settrington, Skipwith, Skirlaugh, Thorpe Bassett, Walkingham, Wilberfoss, Winteringham.

(Yorkshire: North Riding) Arncliffe, Askrigg, Coverham, Easby, Finghall, Gilling, Gisburne, Grinton, Hanxwell, Kirkby Sigston, Ledsham, Marrick Priory, Marton-in-the-Forest, Middleham, Muker, Oswaldkirk, Patricks Broughton, Raskelf, Redmire, Richmond, Sheriff Hutton, South Cowton, South Kilvington, Stillington, Tanfield, Well, Wycliffe.

(Yorkshire: West Riding) Acaster Malbis, Aston, Badsworth, Barnborough, Batley, Birkin, Bracewell, Bradfield, Calverley, Conisborough, Cowthorpe, Darton, Denton, Dewsbury, Drax,



## A HISTORY OF ENGLISH GLASS-PAINTING

Ecclesfield, Elland, Farnham, Fishlake, Halifax, Harewood, Hemsworth, Hooton Roberts, Horton-in-Ribblesdale, Kildwick, Kirk Burton, Kirkby Wharfe, Kirkthorpe, Knaresborough, Ledsham, Long Preston, Marr, Newton Kynne, Normanton, Owston, Pannal, Ryther, Snailsden, Sprotesborough, Stainton, Thornton in Lonsdale, Thrybergh, Todwick, Wighill, Wiston, Woodkirk, Woolley.

Post-Renaissance examples, ecclesiastical or secular, may be seen at :—

Ashted (Surrey); Bury St. Edmunds; Basingstoke: Holy Ghost Chapel; Chapel of The Vyne; Cambridge: Peterhouse Chapel; King's College Chapel; Franks (Kent); Guildford: Abbott's Hospital; Gatton (Surrey); Horton Kirby (Kent); Knole (Kent); Lydiard Tregoze (Wilts.); Lichfield; London: St George's, Hanover Square; St Margaret's, Westminster; Westminster Abbey; Lincoln's Inn Chapel. Malvern; Manchester: St John's, Deansgate; Oxford: Wadham Chapel; Christ Church Chapel; Magdalen Ante-Chapel; University College Chapel (East window by Gyles of York); Queen's College Chapel; Balliol College Chapel. Rugby: College Chapel; St Neot's (Cornwall); Shrewsbury: St Mary's; Stoke Poges; Salisbury; Southwell; Warwick Castle; Wells; Winchester; York.

There are eighteenth-century windows at :—

Arundel Castle (Sussex); Cambridge: Library of Trinity College (By Peckitt, of York); Hagley (near Birmingham); London: St Andrew's, Holborn (East window by Joshua Price, brother to William Price, date 1718); Oxford: New College Chapel (Sir Joshua Reynolds); Queen's College Chapel; Magdalen Chapel (two easternmost side windows by Joshua Price); Merton Chapel (East window by William Price); York: Holy Trinity Church.

Some other eighteenth-century examples are given in Chapter V.

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